Moving History

If you read Erna Anolik’s story, you might recognize her heart-wrenching description of Nazi soldiers dragging sick passengers from a deportation train to Auschwitz and dumping them, alive, into ditches.

You wouldn’t, however, hear the gravitas in the Holocaust survivor’s voice as she emphasizes, “They were put into these ditches with the dead. The living with the dead.” You wouldn’t see the 82-year-old blond-haired woman with high cheekbones and a smooth complexion swelling hard and biting her bottom lip trying to suppress emotion. You wouldn’t take in the sight of her brown eyes welling with tears.

As the world’s largest digital video history archive, the USC Shoah Foundation Institute for Visual History and Education allows survivors such as Anolik to tell their stories directly to viewers. Hearing their voices, seeing their facial expressions and their body language, listeners to their unedited accounts can give viewers a richer understanding of the past. This audiovisual form of chronicling history is also a budding new field.

The institute was launched when the Survivors of the Shoah Visual History Foundation became part of USC College Jan. 1. It is dedicated to scholarship in the humanities and social sciences.

Critical Vision

When Megan Kendrick, a doctoral candidate in history, is doing research for her dissertation on hotels in Los Angeles, she studies old postcards and photographs. She uses advertisements, film reels, maps and blueprints as primary research materials to investigate how the tourism industry played a role in creating an identity for Los Angeles.

Kendrick is part of the new generation of scholars being trained at USC College in visual studies, an emerging interdisciplinary field that examines the historical, cultural and social power of the visual.

“We will need to come to terms with the fact that our society reads differently than it did 20 years ago,” said Kendrick, who works with Phil Ethington and Vanessa Schwartz.

“The future of teaching and of scholarship will be reliant on a deep understanding of how the visual informs our processes of learning and communicating.”

The proliferation of images in our society, coupled with the ever-increasing speed of technology, has led scholars to critically examine visual artifacts and experiences, whether in art museums or photo albums, or in movie multiplexes or magnetic resonance labs.

Visual studies is an area that successfully integrates USC’s strategic interests in globalization, communication and urbanization. Incorporating scholars from other schools across USC — the Annenberg School for Communication, the School of Cinema-Television, the School of Fine Arts — the College has emerged as continued on page 10
A MESSAGE FROM THE DEAN

Mining the Visual

UCSC College is stronger today than at anytime in our institution's history. Despite increased competition in academic, our stature and reputation continue to ascend. We attribute this to our pioneering of new academic fields, our building of innovative programs and our focus on new scholarly and educational paradigms. The most successful colleges of the 21st century will be those who can adapt to rapid change — and UCSC College will be among them.

Consider the burgeoning field of visual studies. It is pervasive, transforming how people think, learn, remember and create.

Take the field of history. Traditionally, historical and cultural information, and artistic expression, were recorded through the written and spoken word, or in static images. While this was once sufficient, historical research is now incorporating a new dimension into its sphere: the digital visual record.

The birth of new technologies and media, such as moving images, cinema and television presented new and exciting opportunities in the 20th century. As these once exclusive technologies become accessible to a wider audience, the time is ripe for universities to embrace the dynamic possibilities they provide. Clearly, our approaches to gathering, recording, storing, accessing and sharing information will need to be different from the scholarly work of 50, or even five, years ago.

Early this year, the USC Shoah Foundation Institute for Visual History and Education became part of UCSC College. The Shoah Foundation Institute holds the world’s most extensive visual history archive in the world — and one of the most important testimonials in modern history. Such an arrangement is unique in higher education. Through the Institute, UCSC College will pursue the mission of overcoming prejudice and intolerance, while providing the foundation on which to build new and innovative approaches to study of visual history and culture.

With such significant opportunities comes the knowledge that there is still far to go. Incorporating technologies and visual materials into our scholarly work raises a complex set of challenges, perhaps some not even yet identified. For example, we must find ways to mine information efficiently from the abundance of visual media. With written materials such as books, indices were developed to help retrieve information. As visual media becomes more fully incorporated into our scholarly enterprise, how can we develop corollary search tools? Society will look to academic institutions to help answer questions such as this. All of the elements are in place for the College to emerge as a leader in visual studies. College faculty are top scholars in this field of study and adept at crossing traditional academic boundaries. The diversity of our programs and emphasis on building collaborations with UCSC professional schools and external institutions, enable us to bring together people with various perspectives and expertise. For example, the College’s Literary, Visual and Material Culture Initiative joins faculty from the humanities, social sciences, natural sciences and the professional schools. Together they are uncovering new insights by examining text, artifacts and images in relation to the larger cultures that produced them.

The result of such synergistic arrangements will allow the College to explore new frontiers and exploit the full potential of visual media. We will not only keep pace with these changes, we will position ourselves at the forefront. The College’s unique academic strengths, combined with the USC Shoah Foundation Institute’s leadership, will enable us to pioneer new uses for this new media, and bring greater depth to visual studies.

Dean Joseph Aoun
Dean of UCSC College
Anna H. Bing Professor

BOARD OF COUNCILORS’ CORNER

A Clinician’s View

A person working on the front lines in the battle against cancer, oncologist Lawrence Piro understands the power of science to save lives.

When Piro, a physician specializing in blood cancers, first began his practice, there were very few good cancer drugs available, he said. That was in spite of the enormous leaps molecular biologists were then making in the lab.

“We just didn’t know enough about how to make use of the discoveries then,” said Piro, a member of the UCSC College Board of Councilors whose daughter is now a senior at the School of Cinema/TV.

Aiming to shorten the lag time between advances made at the lab bench and those used in the clinic, Piro decided early on to devote his career to both caring for patients and the clinical development of new therapies for those battling cancer.

Since joining the College Board in 2004, he has become an articulate advocate for the College’s new Molecular & Computational Biology (MCB) Building, providing a clinician’s perspective on the importance of the interdisciplinary biomedical research pursued by its occupants. He and his wife, Judy, have also supported the MCB Building directly — their names can be found on one of the plaques affixed to the building’s donor wall.

“Basic scientists, like those at the College, create the fundamental building blocks that drive medical breakthroughs. Without their work, there’s nothing going forward,” said Piro, president of The Angeles Clinic and Research Institute in Santa Monica, Calif.

His career highlights include leading the clinical trials for a new leukemia drug that led to complete remission in 90 percent of patients. More recently, he did clinical trials on the first immunotherapy for cancer. The antibody-based therapy, Rituxan, represents a new approach to attacking cancer cells, and has revolutionized the treatment of non-Hodgkin’s lymphoma.

Piro expects next-generation cancer treatments will come out of collaborations not only between physicians and scientists, but also by bringing together scientists from different fields.

As an example, Piro cites the development of PET scans, which doctors use on a daily basis to non-invasively visualize tumors in patients. PET scanners track the body’s use of sugar, in the form of glucose, and show differences in the rate of glucose metabolism across tissues.

Biologists discovered that cancer cells use more glucose than healthy cells. But that was just a first step. Mathematicians were required to quantify and characterize the differences in the metabolic rate. Statisticians helped determine the probability that detecting a change in that rate would correctly indicate a cancer cell. And computer scientists helped design a way to visualize the difference in metabolic rates in a non-invasive way.

“This development was done by scientists working collaboratively over a long time,” Piro said. But what if all of these specialists were housed in the same building?

That’s what’s now happening in the MCB Building.

“The kind of collaboration that led to PET can happen more quickly, with a facility like the MCB Building,” he said. “This will help us move more quickly toward individualized cancer therapy where every patient receives treatment that is customized to their body conditions and their own tumor characteristics.”

He added, “When this is achieved treatment will not only be more effective but far less toxic.”

Piro thinks that scientists at USC are uniquely situated to make key advances in cancer and the understanding and treatment of other complex diseases.

“When people ask, ‘Why USC?’ I talk about a number of things, but most important is USC’s visionary leadership, which has encouraged scientists to look beyond their own field,” Piro said. “USC is a young 125. The age and history of the university and its programs provide tradition and stability, while its visionary leadership encourages the type of youthful thinking that inspires creativity.”

—Eva Emerson
stringing in a small caffeteria in Milan, Italy, the first-year Italian language student finishes her cappuccino. Only when she gets the conto does she realize she doesn’t have enough euros to pay.

Luckily, the USC College student knows just what to do. With just a few clicks of a mouse, she takes a quiz, acquires virtual money, and watches as virtual money fills the account on the screen in front of her. That, of course, is the beauty of a video game.

Thanks to the Virtual Italian Experience (VIE) video game now in development at the USC College Language Center, students will soon be able to regularly take such computer-generated trips to Italy without leaving campus. As players progress from a classroom on the University Park campus to a tour of Italy, the game is designed to engage students and enrich their learning of language and culture.

“The game speaks to every type of learning style and that’s what I like most about it,” said Edie Glaser, VIE project manager and Language Center administrative manager who first envisioned the game.

The VIE game, now 25 percent complete, also marks what may be the first in the use of creative technologies to improve college language instruction. To her knowledge, Glaser said, USC is the first to develop a virtual learning environment for use in a foreign language curriculum.

“I knew first-year language classes at USC teach language through role-playing, and role-playing is central to video games. I thought if there was some way to merge the language pedagogy with video game technology, then we would have something no one else was doing, and it would be an effective learning tool,” said Glaser.

Students playing the game assume a character in the virtual world. With the virtual money earned from quizzes, students must buy specific items in order to progress in the game. A “Visitor’s Guide” explains cultural differences between Italy and the United States, which the students are quizzed on in later scenes. Through Web-based reporting, instructors can monitor student performance, allowing them to adjust their class lessons to spend more time on students’ problem areas.

Through a number of features, the game emphasizes intricate linguistic skills along with cultural awareness. The creators hope that after playing the game students will be able to discuss Italian politics and Italy’s role in Europe, talk about contemporary Italian society and discuss the Italian diaspora around the world.

**Good Timing**

At about the same time that Glaser first envisioned the plan for VIE, Francesca Italiano, director of the College’s Italian language program, completed writing the beginning Italian textbook, Allegro! Her first textbook, Grezundia! (Heinle, 1994), has been the most widely used intermediate Italian text in the English-speaking world.

“Some people might not understand that there are limited resources, such as high quality Italian textbooks and workbooks, available commercially,” said Italiano. What made Italiano’s first book especially successful was its incorporation of Italian culture and experience into its language instruction, something she also did in Allegro!, which is due out in fall 2006.

In 2002, Italiano began working with Glaser and Dan Bayer, executive director of the Language Center, agreeing to use the content in Allegro! for VIE. In short order, Glaser hired a graduate screenwriting student from the School of Cinema-Television, an avid gamer and computer science student from the Viterbi School of Engineering, and a native Italian teacher, Paolo Matteucci, from the College to work on the project.

Since then, a number of students have taken part in designing the game. College graduate student Brooke Carlson is one. After learning Italian and studying in Verona as part of his coursework, he now helps the VIE team with programming, entering XML code into a Flash interface, and adding content to the grammar section. Recent USC College graduate Patrick Reynolds does much of the Flash design and programming.

The VIE team has not simply transferred Allegro! into an electronic form.

“We have personalized activities for students including authentic cultural situations, realistic visual worlds and real-life tasks to motivate students to acquire linguistic skills needed to be able to connect and communicate,” said Italiano, who reviews and approves all game scripts to ensure high quality.

**In Development**

With funding from a two-year National Endowment for the Humanities (NEH) grant, the VIE team plans to complete the game by June 2007.

Getting the NEH grant was a long shot, but vindicated the team’s efforts, Bayer said.

“Language programs do not usually receive grants from the NEH, but our proposal showed how the game combined with classroom experience will advance learning about contemporary Italian culture and society,” he said.

Bayer estimated that it would have cost about $1 million for a software company to create a game like VIE. The Language Center developed the interactive concept outline for VIE for one-tenth of that amount, he said.

Linking new technologies with foreign language teaching and learning has been a key aim of the USC College Language Center since it opened in 1997. In 1999, thanks to a grant from the Andrew W. Mellon Foundation, Bayer oversaw an effort to integrate technology into language curricula with online video labs, audio streaming and activities that require students to visit Web sites in the target language. Now, students have online access to audio, video and workbook lessons in eight languages.

“ Anything that did not need to be done in the classroom was taken out and put into an electronic online version,” said Bayer. “The change means time can be spent more efficiently in the classroom interacting in the language and learning the culture with classmates and the teacher.”

This spring, students, staff and faculty with backgrounds in Italian, 3-D modeling, animation and video game design are pitching in to help develop and beta test VIE.

When the game is finished in 2007, Prentice-Hall has first right of refusal to publish and market VIE to universities across the country. USC students will always have free access to the Virtual Italian Experience. Italian language students will be able to connect to the game via a downloadable application.

“At USC College, we want to make the learning experiences of our students as meaningful as possible. Sometimes this means looking in unexpected places for solutions,” Bayer said.

—Kirsten Holguin

**From left: Edie Glaser, Dan Bayer and Francesca Italiano are collaborating with students to develop an immersive electronic game for beginning Italian classes at the College Language Center. A view of the game is shown on the monitor screen.**

**PHOTO BY KELSEY WARD**
Developing A Voice
Master of Professional Writing Program Turns 35

P oet Jim Ragan has been at the helm of USC College’s Master of Professional Writing Program for most of its 35 years.

Ragan became director of the nation’s first multidisciplinary master’s program in creative writing 10 years after the program launched in 1971. The objects inside his comfortably cluttered office tell a story about how far the program has come.

Take the antique chair reserved for visitors. When the program began with 28 students and eight faculty members, the chair was in great shape.

With the program now numbering 180 students and a faculty of 30, the old chair is a bit worse for wear.

Ragan has simply covered the threadbare upholstery with a sheath of wine-red velvet. “It’s been with me since the day I started 25 years ago,” he said.

Near the chair, shelves are packed with plays, screenplays and books written by MPW students. In order to graduate, students must write a publishable thesis in the genres of fiction, non-fiction, poetry, television, screenplay or playwriting.

Encased in glass are some of the students’ published works. So far, MPW students have published about 100 novels, 52 nonfiction and 20 poetry books. Their screenplays have been made into 20 films and received three Academy Award nominations.

Forty plays have become professional productions.

On a wall, a framed poster shows one of the most recognizable successes. It depicts Jack Nicholson holding up a cute little dog.

Mark Andrus wrote the screenplay for “As Good as It Gets,” his MPW thesis. In 1998, Andrus was nominated for the best original screenplay Oscar and Golden Globe and won a Writers Guild of America Award for the work.

He went on to write the screenplay for “Life as a House” and “Divine Secrets of the Ya Ya Sisterhood.”

Work from other former MPW students such as Sandra Tsing Loh, Erich Van Lowe and Charles Webb are also displayed.

Like the others, Kaytie Lee came to the program with a passion for writing and a dream in her heart.

On this day, Lee walked into Ragan’s office cradling a large hardback book. It was her thesis, a 483-page novel titled, Traveling into the Sun.

“When comes the hard part,” said Lee, 29, recipient of the 2004 Phi Kappa Phi Award. “Getting an agent and getting it published.”

The best part about the program, Lee said, was having access to the great writers who comprise the faculty. She adored Hubert Selby Jr., author of Last Exit to Brooklyn, who died in April 2004.

A few others include: Janet Fitch, who wrote White Oleander; Kenneth Turan, a film critic for the Los Angeles Times; biographer Noel Riley Fitch; and humorist and playwright Shelley Berman.

“They help you to develop your voice,” Lee said. “This is a great place to grow and develop your craft.”

Ragan agreed.

“You can’t teach writing,” he said. “You can’t teach sensitivity. They have to arrive here with that already. What we’re here to do is teach sensibility, the ability to make sense through craft.”

Another item inside Ragan’s office highlights the program’s international acclaim. A poster-sized photograph shows former Czechoslovakian president Vaclav Havel wearing a dark red “USC Professional Writing Program” T-shirt.

The photo holds historical significance. That day in 1993, Havel had resigned from office to protest the dissolution of Czechoslovakia into the Czech Republic and Slovakia. The photo, the first taken of Havel as a civilian, appeared on the front of major newspapers.


—Pamela J. Johnson

Writing on a Global Canvas
Wielding a pen, USC College poet and teacher finds international success

J im Ragan is a steel worker’s son who spoke only Slovak until age 6.

B orn and raised in Pittsburgh, his parents had fled the Great Depression in then-Czechoslovakia and migrated by ship to an immigrant community in Pennsylvania. A towheaded, athletic boy on the stocky side, Ragan was the 12th of 13 children.

Growing up, he became the target of prejudice by classmates, who taunted him endlessly for being a poor immigrant who spoke little English. Although a sensitive child, he was forced to defend himself.

Ragan’s world changed when he learned English, and he found he could win battles with words rather than fists. He grew to respect the power of language.

Although his parents were uneducated, they encouraged their children to attend universities. In high school, Ragan played basketball and football, and soaked up books like a sponge. He won a full athletic scholarship to St. Vincent College, then Ohio University, where he began writing poetry in earnest and earned his Ph.D. in English.

As a young adult, he began visiting family in what is now Eastern Slovakia. There, sitting in noisy cafes with a pencil and yellow legal pad, his poetry blossomed. It was then, he said, that he committed to writing about subjects of gravity — such as the oppression of communism in his family’s motherland.

Ragan’s poetry is acclaimed for exploring the universality of the human condition. Ragan says the themes in his poetry have always been about breaking down borders — metaphoric and literal — from the borders people create as places to grow and develop your craft.

“Writing is a voice from the borders people create as places to grow and develop your craft. They help you to develop your voice,” Lee said. “This is a great place to grow and develop your craft.”

Ragan agreed.

“You can’t teach writing,” he said. “You can’t teach sensitivity. They have to arrive here with that already. What we’re here to do is teach sensibility, the ability to make sense through craft.”

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—Pamela J. Johnson
Liars’ Brains Wired Differently

Pathological liars may have differences in the area of the brain linked to remorse.

“Lying takes a lot of effort. You have to understand the mindset of the other person. You also have to suppress your emotions.” — Psychologist Adrian Raine

At USC, psychologists have found the first proof of structural brain abnormalities in people who habitually lie, cheat and manipulate others.

Previous research has shown that when normal people lie there is heightened activity in the prefrontal cortex — the area of the brain that enables most people to feel remorse or learn moral behavior. But the USC study, published in the British Journal of Psychiatry, is the first to provide evidence of structural differences in that area among pathological liars.

“Pathological liars can’t always tell truth from falsehood and contradict themselves in an interview,” said Adrian Raine, the Robert Wright Professor of Psychology, who co-authored the study with psychology doctoral student Yaling Yang and others. “They are manipulative and they admit they prey on people. They are very nuances in terms of their manner, but very cool when talking about this.”

Researchers gave a series of psychological tests and interviews to 108 volunteers pulled from Los Angeles’ temporary unemployment pool. They identified some with a history of repeated lying, who exhibited signs of antisocial personality disorder but not pathological lying, and others who were normal.

After they were categorized, the researchers used magnetic resonance imaging to explore structural brain differences between the groups. The liars had significantly more “white matter” and slightly less “gray matter” than those they were measured against. More white matter — the wiring in the brain — may provide liars with the tools necessary to master the complex art of deceit.

“Lying takes a lot of effort,” Raine said. “It’s almost mind reading. You have to be able to understand the mindset of the other person. You also have to suppress your emotions or regulate them because you don’t want to appear nervous. There’s quite a lot to do there. You’ve got to suppress the truth.”

“Our argument is that the more networking there is in the prefrontal cortex, the more the person has an upper hand in lying. Their verbal skills are higher. They’ve almost got a natural advantage.”

But in normal people, it’s the gray matter — the brain cells connected by the white matter — that helps keep the impulse to lie in check.

The researchers stopped short of asserting that these structural differences account for all lying. “This is one of the components,” he said.

Yang, the study’s lead author, said the findings eventually could be used in making clinical diagnoses and may have applications in the criminal justice system and the business world.

“If [the findings] can be replicated and extended, they may have long-term implications in a number of areas,” she said.

“For example, in the legal system they could potentially be used to help police work out which suspects are lying. In terms of clinical practice, they could help clinicians diagnose who is malingering — making up disability for financial gain. And also in business, they could assist in pre-employment screening, working out which individuals may not be suitable for hiring.”

“But, right now, I have to emphasize that there are no direct practical applications,” Yang said.

—Vlad Statiff
Growing Faculty
New post focuses on faculty development and diversity

In his own department, David Román, professor of English and American studies and ethnicity, has been mentoring junior faculty and building an intellectual community for years.

Now with his appointment as the director of faculty development in USC College, Román has a chance to expand the impact of his mentoring work. In the newly created position, Román will oversee junior faculty mentoring, minority faculty recruitment and the development of a more robust scholarly community in the College.

The appointment reflects the College’s serious commitment to increasing mentoring as well as ethnic and gender diversity, said Joseph Aoun, dean of USC College. Over the last five years, the number of under-represented minorities on the College faculty has increased by 53 percent and the number of women has increased by 40 percent.

“This position is all about helping junior faculty succeed,” said Román, who reports to Wayne Raskind, the College dean of faculty. “My role in this position is one of facilitator, to set up meetings for the junior faculty and introduce them to members of the USC community so that the institution can be demystified.”

Román has introduced the concept of a cohort where all junior faculty hired in a given year will move through the tenure process as a group. He believes that connecting junior faculty is the first step in the creation of a richer intellectual dialogue on campus.

To this end, he has organized an open monthly meeting for first-year assistant professors in the College to network, share tips and problem solve. New junior faculty will be introduced to members of the College administration and the USC community such as the dean of research or library services.

Tenure-track faculty have only six years to reach tenure, which puts junior faculty under tremendous pressure to publish in order to advance. Next year, Román plans to expand the topics in the monthly meetings to include professional goals including publishing.

Last October, as one of his first efforts in his new post, Román organized USC’s first Latina/Latino Studies Symposium.

“The symposium was an enormous success,” said Román. “It showcased five USC graduate students and four tenure-track scholars who presented their research alongside visiting nationally recognized scholars in Latina/o Studies.”

Through similar symposiums, Román plans to provide an increasing number of opportunities on campus for minority scholars from USC and from other institutions to present their work.

To further recognize the stellar work of junior faculty, smaller inter-departmental events such as readings and panel discussions are in the works.

Román adds his new duties to an already demanding schedule. His own research interests in theater, drama and performance require him to attend around 80 live performances a year.

“Since production runs are generally limited to a few weeks or months, I need to see the work while it is still staged, wherever the production might occur. This field work takes me all over the country,” said Román.

In his new book, Performance in America: Contemporary U.S. Culture and the Performing Arts (Duke University Press, 2005), Román draws attention to the ways that the performing arts provide unique perspectives on many of the most pressing concerns within American studies: questions about history and politics; citizenship and society; and culture and nation.

—Kirsten Holguín

Retraining A Lazy Eye
New treatment offers promise for adults

Young adults with amblyopia, or lazy eye, can improve substantially and retain their gains under a new treatment developed by researchers at USC College and three Chinese universities.

Amblyopia has been considered incurable in individuals older than eight. The new study, published in Vision Research, documented a 70 percent improvement in eye-chart performance in 19-year-old subjects. The average one-year retention rate was 90 percent.

Researchers trained people with lazy eye on a visual task that improves contrast perception. The task involved detection of a small “gabor,” a set of three contrasting dark and light ovals and a basic unit of visual preception, on a computer screen.

Surprisingly, improvement in this abstract exercise generalized to a marked improvement in standard vision tests. The seven subjects improved their overall visual acuity 25 to 216 percent, with an average of 70 percent.

Another 10 subjects in a slightly different training program showed an average improvement of 46 percent. Eight subjects in a control group showed no improvement.

“Detecting simple visual patterns turned out to be quite useful for improving visual acuity for amblyopia patients, typically measured by eye chart reading,” said co-author Zhong-Lin Lu, a professor of psychology and co-director of the Dornsife Neuroscience Imaging Center.

“You train on one of these gabor, you can generalize this to a whole bunch of different gabor, and also generalize this to an eye chart. That makes it (the training) useful,” Lu said.

Normal subjects who received the same training did not show a general improvement in vision. A possible reason may be that a little stimulus goes a long way toward awakening the amblyopic eye, Lu said.

Amblyopia is sometimes due to a misaligned eye that can be re-orient surgically. But in many cases the eye is perfectly healthy, Lu said: “The problem is actually in the brain. This is a neural deficit.”

The researchers plan to further test their method on patients at a clinic in China.

“It could become a clinical procedure,” Lu said.

Since the study came out — the research was featured in the New York Times — Lu has received more than 50 calls from people with amblyopia, and his group is now working to create a program that people can use at home.

In addition to USC, the paper’s co-authors come from the University of Science and Technology of China, Anhui Medical University, and the Chinese Academy of Sciences. Funding for the research came from the Chinese government.

— Carl Marziali
Cold, But How Cold?

Student’s fossil find pokes holes in hypothesis on “Snowball Earth”

A study that applied innovative techniques from the emerging field of geobiology to previously unexamined rock formations has turned up strong evidence on the “Slushball Earth” side of a decades-long scientific argument. 

Up-and-coming geobiologist Alison Olcott, a doctoral student in earth sciences, and her colleagues reported the new finding in the Sept. 29 Science Express.

Geologists agree that prehistoric Earth went into a deep freeze during Precambrian times, about 750 to 600 million years ago. Ancient rock samples from this time show evidence of extensive, relatively sudden global climate change. The scientists disagree, however, about the severity of the glaciation.

“Snowball Earth” proponents say that Earth’s oceans were completely covered by ice as thick as two kilometers in some places. They explain the survival of life through this extreme ice age by hypothesizing the existence of small warm spots, or refugia. On the other side are supporters of a “Slushball Earth” that would have included large areas of thin ice or open ocean, particularly around the equator.

The ongoing debate has tended to revolve around the same rock samples and analytical techniques, Olcott said. Seeking a new perspective on the issue, she and her team focused on a drill core of little-known black shale deposits from southeastern Brazil.

Mining and oil companies obtain drill cores, complete with meticulous notes about the location and depth where they were sampled. The cores had proven commercially useless because they were not sufficiently rich in minerals. Ironically, this made them perfect candidates for Olcott’s study, since the hot water necessary to form minerals would have destroyed the organic remnants she sought to study.

Using a biological technique that detects lipids, the team analyzed the shale and found the fatty remains of cell membranes. They concluded that the shale contained the fossils of prehistoric organisms.

“The team, which included scientists from USC, Caltech, the University of Maryland and a Brazilian mining company, identified ‘a complex and productive microbial ecosystem,’ including photosynthesizing organisms that could not have existed under a thick layer of ice,” said Olcott.

“If there was ice, it had to have been thin enough that organisms could photosynthesize below it or within it,” Olcott said.

Frank Corsetti, assistant professor of earth sciences, one of Olcott’s advisors and a co-author on the paper, said: “What she has provided is the first real evidence that substantial photosynthesis occurred in the Earth’s oceans during the extreme ice age 700 million years ago, which is a challenge for the ‘Snowball’ theory.”

Previous research by Corsetti also has challenged the “Snowball Earth” hypothesis. In 2000 he discovered that rock samples from that period contained the fossils of both prokaryotes and eukaryotes.

Single-celled prokaryotes, thought to be one of the earliest organisms on the planet and still one of the most pervasive of all living things, were believed to have been the only life to survive the ancient ice age. Because the more complex eukaryotes would be susceptible to extinction in the extreme temperatures, they likely would not have survived an Earth entirely covered by ice glaciers, according to Corsetti.

Olcott’s evidence from the drill core, while dramatic, does not prove irrefutably that large parts of the ocean remained free of sheet ice during the Precambrian glaciation. It is statistical-unlikely but possible, Olcott said, that the drill core found one of the tiny “refugia” for marine life whose existence is allowed under the “Snowball Earth” hypothesis.

But, she said, “finding the one anomalous spot would be quite unlikely,” adding that the core sample came from an extensive formation of rocks with similar characteristics.

“At what point does an enormous refugium become open ocean?” she asked.

Skeptics also may argue that the rocks do not necessarily date to a glacial era. Olcott said. But her team found evidence of glacial activity in the samples, such as dropstones (continental rocks dropped by melting glaciers into marine deposits) and glendonites (minerals that form in near-freezing water).

Objections aside, the paper’s main contribution may be the application of new techniques to an old chestnut.

“Geologists don’t necessarily think of looking for traces of microbes left in the rocks. This is the first direct look at the ecosystem during this time period,” said Olcott. “It was a new way to attack the problem.”

Combining knowledge from disparate fields is nothing new for Olcott, who grew up in western New York the daughter of two Colgate University professors. She received her bachelor’s degree in geology at the University of Chicago, but only after switching from a double major in chemistry and biology on the last day of her junior year. Her broad training in the basic sciences sequed quite naturally to her work at USC.

She credited the USC College geobiology program, one of a handful in the country, with influencing her thinking. “What drew me to geobiology,” said Olcott, “was how the field uses the tools and knowledge from a number of different fields to develop new approaches to solving problems, or at least trying to solve them. They really try to synthesize between geology and biology.”

Corsetti agrees. “The climate of collaboration between geologists and biologists,” he said, “is unusually good at USC... it was this way of thinking that provided the impetus for the project in the first place.”

—Carl Marzluff and Wayne Lewis

Geobiologist Frank Corsetti examines a mineral deposit in a northern California spring for signs that microbes played a part in its formation. His studies of similar ancient deposits have revealed fossils inconsistent with a “Snowball Earth.”
Moving History
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our common expertise in digital library management to provide global access for scholars to these important archives.”

“I see USC making its mark with visual history,” said Joseph Aoun, dean of USC College. “We’re becoming a leader in this emerging field. The opportunities are staggering.”

Aoun and others predicted the collaboration surrounding the testimonies would spark the creation of new areas of study.

“This is only the beginning and we don’t know where it’s going to take us,” Aoun said. “We’re facing the possibility of new fields coming out of this. Some will intersect, some we can not yet foresee.”

The Edward L. Doheny Jr. Memorial and Thomas and Dorthy Leacey libraries house most of the 51,689 audiovisual testimonies of Holocaust survivors — including Jews, Roma and Sinti, homosexuals, Jehovah’s Witnesses and political prisoners — collected by the Shoah Foundation. Also included are accounts by witnesses such as rescuers and war crimes prosecutors.

Interviewers traveled to 56 countries — from Argentina to Zimbabwe — gathering testimonies in 32 languages. They went to great lengths videotaping most survivors inside their homes. In the hinterlands of Eastern Europe and other places, electricity was scarce.

“Some did not have electricity because it was so expensive,” recounted Karen Jungblut, former Shoah Foundation cataloging director and now a special projects manager in the College. “If that was the case, we covered the cost. In other cases, there was electricity at only certain times during the day.”

In all, 120,000 hours of video was collected; the average interview was 2.5 hours. The archive, requiring nearly 200 terabytes of storage space, would take a person 13.5 years to view in its entirety. One terabyte equals 1,000 gigabytes. The archive is digitized and electronically searchable by nearly 50,000 keywords, mostly geographic locations, or nonjudgmental phrases such as “living conditions in the camps.”

Experts say the massive audiovisual archive will help revolutionize the way society defines and chronicles history.

“Most of us learned what we know about the past from pieces of paper and ink on those pieces of paper. Occasionally, from photographs,” said historian Douglas Greenberg, former president of the foundation and now executive director of the institute.

“A hundred years from now, when people come to write about our contemporary world, they’re going to find sources that are not ink on paper,” Greenberg continued. “A hundred years from now, when people do scholarship about our time, they will do their research from video. That’s why we called it visual history and education. In the future, the past will be something that is visual.”

College faculty, Aoun said, are already playing a critical role in defining and shaping the budding field of visual history, the multimedia form of historical narrative.

Hoping to emulate Columbia University’s early leadership in oral history, USC — already a pioneer in digital technology — will gain further prominence as an authority in visual history, Aoun said. But collaborating with institutions throughout the world remains a main objective.

USC has been a leader in the development of digital libraries, and boasts state-of-the-art technological resources for preserving archival materials. The Shoah Foundation and USC have partnered in the past to catalogue Holocaust testimonies collected in California. USC also connected the foundation to Internet2, an advanced high-speed network for research and higher education.

The foundation has made the archive available to museums, schools and other institutions around the globe. Such educational outreach efforts on the international level have increased.

“Let’s be clear about this,” Aoun said. “This archive doesn’t only belong to the College. Or belong to any school. This belongs to the whole world.”

In addition to ensuring that the message of tolerance and respect will be distributed globally, placing the archive at USC guarantees its preservation.

That was a main reason Steven Spielberg, who launched the Shoah Foundation, chose USC. Spielberg began collecting the testimonies in 1994, after directing "Schindler’s List," a seven-time Academy Award-winning film about Oskar Schindler, who saved the lives of hundreds of Jews during World War II by employing them in his factory in Poland.

Now that the testimony has been collected and nearly all indexed and catalogued, it belongs at the 125-year-old research university, Spielberg said.

“When the shifting sands of time reach California’s well, USC will still be standing,” Spielberg said after a recent event announcing the partnership, and the Shoah Foundation’s move from the Universal Studios lot to the University Park campus.

“Universal [Studios] has changed hands six times since I arrived in the late ’50s as an interloper,” Spielberg said. “So there’s no guarantee our trail- ers will be welcome five years from now, or two years from now.”

USC President Steven B. Sample added that “universities last longer than constitutional states, they last longer than corporations.”

At USC, the archives will be used in countless innovative ways.

“The watchword for the next 30 to 40 years is interdisciplinary,” Sample said. “There, here is a lot of room for
growth. The Shoah Foundation is going to find those interdisciplinary opportunities. The opportunities will be much more readily available when they’re an integral part of an academic community than if they remained as an independent organization.”

USC College’s Don Miller, a religion and sociology professor, is among those excited about the possibilities. Miller and his wife, Lorna Touryan Miller, have collected testimonies related to the Armenia and Rwanda genocides and have written books on the subjects. Don Miller is also executive director of the Center for Religion and Civic Culture.

He said the new institute would attract more collaboration with organizations such as the Armenian Film Foundation. He hoped the AFF’s archive of 400 testimonies related to the Armenian genocide of 1915 would be brought to USC, where they could be catalogued and accessible to scholars and students.

Miller also envisioned an extensive project on the 1994 genocide in Rwanda, where Hutu extremists killed more than 800,000 Tutsis in 100 days.

“The Rwanda genocide is so fresh there is the potential of doing a Shoah Foundation-type project, in which the same technology in terms of videotaped interviews and coding could be done,” said Miller, the Leonard K. Firestone Professor of Religion.

“The Shoah Foundation’s collection allows us to move beyond the flat medium of print and include the visual and the audio dimension, which, of course brings in a range of human emotions,” continued Miller. “Facial expressions, the tears, the pauses. All of this actually has the potential to revolutionize research.”

Collaborations would involve diverse disciplines from anthropology to psychology. At USC, the testimonies have already been used in film and business courses. At other universities, professors are using testimony of survivors speaking Slavic to teach the Slavic language. Or they’re using it to study the psychology of childhood trauma. Still others are using it to study interviewing techniques.

Spielberg called the institute “the hub of a wheel with many spokes. And each spoke is a different visual history about a different cultural event that changed the world.”

Future visual history archives, he said, might include events in Rwanda and Serbia, or address issues such as slavery and civil rights, and the abuse of Native Americans by Spanish conquerors.

Yet, Spielberg said, there has been great concern about the Holocaust survivors’ testimonies falling into the wrong hands.

Right now, the archive is accessible to four of the approximately 200 universities nationwide connected to Internet2. In addition to USC, Yale and Rice universities and the University of Michigan have access to the archive. The list is expected to grow, but officials have no plans to make the archive completely accessible online.

“We have to be very, very careful not to release the testimonies on an open site where it can be used as disinformation about the Holocaust,” Spielberg said.

Greenberg said alternatives were carefully considered. In the end, the good outweighed the bad. “If you really wanted to protect the archives, permission.

Of the Shoah Foundation’s 100 employees, 25 joined the new institute at the College, some working in development, marketing, fundraising and local and international educational out-
Critical Vision
continued from page 1

the engine behind the effort to promote trans-school and interdisci-
plinary scholarship and collaborations in this exciting new field.

Institutionalizing the Visual

“We are building an intellectual community on campus,” said Richard
Meyer, associate professor of art history. “USC is a site for the production of
new knowledges and the exchange for adventurous ideas in the study of
the visual and the history of visual culture.”

As the director of a new graduate
certificate program in visual studies, Meyer oversaw the program’s launch
this winter. Housed in the College,
the certificate program is open to stu-
dents who are already enrolled in a
Ph.D. program at USC. By taking an
introductory course in visual studies, a
multidisciplinary team-taught seminar
and two additional courses, students
will learn to critically analyze visual
objects and experiences in their own
scholarship. The new approach bol-
sters and challenges students to move
outside of their own traditional disci-
plinary training.

“Visual studies is a compelling
intellectual framework because it is
not limited to any discipline, geo-
 graphical region, historical period or
methodology,” explained Professor
Akira Mizuta Lippit, a new faculty
hire who teaches in the departments
of comparative literature, East Asian
languages and cultures, and critical
studies. “What it does provide is a
sensibility, an opportunity to look at
what is often overlooked, everyday
and familiar objects as well as the
more obscure and distant things that
recede from sight.

“It is a sensibility that forces one to
question and reexamine virtually
everything,” Lippit added, “that has
allowed some to discover new objects
and ways of looking and thinking, and
others to discover new ways of look-
ing at and thinking about familiar
objects.”

This spring, American studies and
religion scholar Jane Iwamura
and anthropologist Nancy Lurkehaus
have teamed up to teach “Picturing
Paradise.” The visual studies seminar
addresses the representations of
place, landscapes and people associat-
ed with Western ideas about paradise
on earth, images of utopia and
Shangri-Las.

Bill Deverell, professor of history,
and Roberto Lima-Sagarena, assistant
professor of religion and American
studies and ethnicity, are leading a
second seminar, “Envisioning
Frontiers and Borderlands.” The
course examines the American con-
cept of the frontier — how the West
was conceived, how visual symbols
have been central to the region’s his-
tory and how intersections of race,
ethnicity, gender and religion have
informed the idea of the American
West.

Taught at the Huntington-USC
Institute on California and the West,
which Deverell directs, the seminar
utilizes the Huntington Library’s col-
lections of archival materials, such as
maps and photographs.

The Huntington is not the only
Los Angeles resource that USC is col-
laborating with — Malcolm Baker,
professor of art history, teaches a
course on the history of art
collecting and display at the
Getty Museum and
Research Institute. Also, the
recent establishment of the
USC Shosh Foundation
Institute for Visual History
and Education (see story page
1) further strengthens visual
studies in the College.

Seeds of the Program

“The image can be as much a
source of insight as the word,” said
University Professor Leo Braudy.
Realizing this allows students and
scholars to recognize that their fields
are not isolated areas of study, but
have important and fertile intersec-
tions with other fields, he said.

“Insight has little respect for aca-
demic traditions,” said Braudy, the
Leo S. Bing Chair in English and
American Literature and professor of
English and art history. “There are
insights that come from digging deep-
ner into a subject and there are insights
that arise from an appreciation of the
connection between seemingly distant
subjects. Both are valuable.”

Indeed it was Braudy who co-
chaired the Visual Culture Initiative
— the original visual studies seminar
that brought many leading scholars to
USC — with art historian Nancy T.
Galvanized by the initiative’s success,
the then dean of academic programs,
Sally Pratt, began regular gatherings
for humanists to discuss visual culture
at the College.

The College already had a master’s
program at the Center in Visual
Anthropology where students worked
outwardly producing scholarly and pro-
fessional ethnographic films.

Undergraduates could study visual
culture through a minor program in art
history. But Pratt, professor of Slavic
languages and literatures, envisioned a
broader, more interdisciplinary effort.

That led, in full fall, 2003, to the
Literary, Visual, Material and Culture
(LVMC) Initiative, designed to
explore relationships between images,
texts and objects, with their many
overlaps, tensions and interpretations.

Chaired by Meyer, the LVMC’s pri-
mary goals were to facilitate
conversations among the faculty across
campus, to showcase faculty work-in-
progress and to provide team-taught
classes.

LVMC inspired individual faculty
to pursue further collaborative proj-
ects. Historian and visual culture
scholar Vanessa Schwartz worked with
Anne Friedberg of Cinema-TV
and Marita Sturken of Annenberg to
establish the Visual Culture Project.

Funded by a Zambeze grant, the
project helped bring outside scholars

to USC to discuss visual culture research including the global image, the brain and vision and sensory perception.

Meanwhile, with funds from the Provost, Meyer, Schwartz and Friedberg created the Visual Studies Research Lab. With this funding, they hosted a visual studies summit, “In the Visual Laboratory,” in early December 2005, bringing together faculty from across the campus to share their work with colleagues and students.

“LVMC really provided an opportunity and the framework for faculty to organize themselves,” said Schwartz, associate professor of history. “Without it, we just wouldn’t have had the traction.”

**Changing the Way We Think**

Schwartz was trained as a historian of Modern Europe, but her interest in culture and the importance of representation led her to stray to literature, art history and film studies — each of which expanded her tool set beyond those used in traditional historical research. “These allowed her to ask questions about looking and entertainment not usually asked by French historians.”

Her first book, *Spectacular Realities* (University of California Press, 1998), examined how wax museums, panoramas and the city morgue prepared the groundwork for the experience of the cinema, while they were also ingredients of an emergent mass culture.

Since then, Schwartz has expanded her research on Paris. She is particularly interested in the Eiffel Tower as an urban icon, about the significance and signification of the structure itself.

What is the meaning of the tower? What does it conjure and how does it denote a place and time? Her “Urban Icons Project” with Phil Ethington, professor of history, began as a conference, but has become a multimedia scholarly project. “It is not just a history of urban visual culture,” said Schwartz. “It is also an historical argument in visual form.” Visit it online at www.usc.edu/livd/LAMC/historyurbanicons

It seems like an obvious sequitur that after studying fin-de-siècle Paris, the Eiffel Tower and the advent of cinema that Schwartz’s next topic would question the very notion of Frenchness itself. Her latest project, “It’s So French! Nationality and Internationalism in French and American Cinema, 1945–1968,” explores postwar Franco-American relations as well as the Cannes Film Festival, Brigitte Bardot and conceptions of cosmopolitanism.

Historians interested in visual studies examine visual representations — whether films, art or icons, said Steve Ross, professor and chair of history, to see how they open up implications about the past and the present.

At the College, “we are at the cutting edge of what visual culture is,” he added. “We are looking at what it is to take visual objects as historical sources, not just photographs or films as illustrations, but looking at the visual as primary documents.”

**What the Future Holds**

Richard Meyer’s work on art and censorship necessarily goes beyond the boundaries of conventional art history and canonical “high” art. For his award-winning book, *Outlaw Representation: Censorship and Homosexuality in Twentieth-Century American Art* (Oxford University Press, 2001), he analyzed protest posters, court transcripts and TV news stories alongside oil paintings and art photographs. Meyer and colleague Nancy Troy are teaching a new graduate seminar entitled “Marketing the Modern: The Visual Culture of Avant-Garde and Kitsch.”

He is also co-authoring a book for the UC Press on the 1940s tabloid photographer Weegee. As a graduate student, Meyer debated with his advisers about the importance of studying photography in an art historical context. “That’s not really art,” they told him, anchored in their own training in canonical painting and sculpture.

The memory struck him, he said, when his students came to him wanting to study digital art and culture. At first, he discouraged them saying, “That’s not really art. Photography is.” “One of the most difficult things for both faculty and students is to step outside the limits of our own intellectual formation to see what we can learn both from older and younger generations,” Meyer said.

Younger scholars have grown up with the Internet and a tremendous amount of visual material on the Web and will have an easier time thinking about the visual in academia, compared with older scholars who might be more resistant, reluctant to step outside the boundaries of their discipline, Ross predicted. “I don’t think it’s disagreement,” said Ross, “as much as it is not being clued into it.”

Chued in or not, it’s clear that in our image-dense world, the field of visual studies is here to stay. Also clear is that USC faculty, in the College and beyond, are poised to play a key role in defining and shaping what the field will become.

“The future for visual studies is bounded only by our own imaginations and, of course, the resources that we need to pursue it thoroughly and responsibly,” said Braudy. “It isn’t just a field in itself but an approach to knowledge and understanding that could affect many fields. Its more widespread effect will be [felt] as professors and students realize how some of its approaches and methods will fruitfully open up new aspects of our own work.”

—Katherine Yangmee Kim
Ways of Seeing

Diverse group of scholars explores the visual

With the recent deaths of director Elia Kazan and actor Marlon Brando, Leo Braudy’s On the Waterfront (British Film Institute, 2006) is a timely and definitive study on the 1954 film. The book discusses the elements that made the movie a classic, from how it was written to how it was shot and edited. Braudy, who co-chaired the Visual Culture Initiative seven years ago, is one of the early pioneers of visual studies in the College and one of the nation’s leading film critics. “I’m interested in storytelling,” he said, “whether that is done visually, verbally, musically, or in any combination of forms; whether it’s done on the page, on the canvas, or on stage.”

Malcolm Baker, an 18th century sculpture specialist, is interested in the changing afterlife of objects. He teaches a graduate course on the history of art collecting and display at the Getty Center, where students reconstruct the activity of collections, reconfiguring the ways the pieces are viewed. Discussing questions of authenticity and connoisseurship, Baker said the field is “about perception and making sense of the relationship between objects.”

“The urban experience is intensely visual, so that [visual] dimension of history must be a part of urban studies,” said Phil Ethington. “By the same token, visual expression can be very powerful and should be part of the scholarly toolbox.” Ethington not only studies but also produces visual culture in the course of his multidisciplinary research. To represent and analyze historical change of global metropoles, he has experimented with new forms of cartography, photography and interactive multimedia.

“Teaching courses on ethnographic film and visual anthropology, added to her experience as editor of the Visual Anthropology Review, led the way for Nancy Lutkehaus’ recent project about images and media representations of Margaret Mead. She explores the meanings of various images of Mead — the most visible of all 20th century American anthropologists — in her forthcoming book, Margaret Mead and the Media: Anthropology and the Making of an American Icon.

Lisa Bibel’s latest book project, Test Sights: The Medieval Debate Over Christian Religious Visions, explores the evolution of historic religious visions from individual experiences to a shared form of expression or a written description of a visual event. It started, she said, with her love for what she calls “vision kitsch” — from online chronicles of miraculous sightings of the Virgin Mary to her Virgin de Guadalupe beach towel. In collaboration with neuroscientist and biomedical engineer Norbert Grzywacz, she also studies the effects of environment and culture on human vision. And, with Matt Gainer of USC Information Services, she is preparing a multimedia exhibit of iconic visions, funded by the Center for Religion and Civic Culture.

In the 16th and 17th centuries, the color green was not just a hue that fabrics and paints might display, but a whole way of looking at the world. In his forthcoming book, Green Thought, Bruce Smith demonstrates that seeing green engages the world through emotions as well as reason. In physical terms, green was thought to be the most pleasant color, and was also associated with passion. The book is also a critique of the skeptical distance that critics over the past 25 years have kept between themselves and the poems, novels and plays that they study.
Within months of earning her B.A. in creative writing from UC San Diego in 2002, Sharon Shapiro had a job in journalism, an apartment with friends and a small, if growing, 401(k).

Then, two years ago, she traded it all in — the apartment, the salary, the career — for a shot at her true calling — medicine.

She’s not alone.

In fact, as a student in the Postbaccalaureate Premedical Program at USC College, she is part of a vibrant community of students who have given up jobs, security and old goals to pursue careers as healers.

Founded in 1998 by Professor Larry Singer, the program offers students with an undergraduate degree a chance to complete math and sciences courses required by medical schools.

So far, PPP has sent a total of 30 students to medical or other professional school, and has a first-time applicant acceptance rate of about 80 percent.

“While a few students come directly from undergraduate studies, many have spent a significant amount of time pursuing other goals, or even entire careers,” said Singer, a professor of chemistry, who has run the program almost single-handedly for over seven years.

“PPP students are also building up their clinical experiences while in the program. Some, like Shapiro, volunteer as many as 20 hours a week. Interviewing applicants for the program, Singer doesn’t try to whet the challenges students will face. What he does do is try to select those sincerely committed to medicine, or in a few cases, veterinary or dentistry careers.

“I just feel so lucky to be here,” said Shapiro, 25.

“When you feel like you are on the right path, you don’t mind all of the challenges,” Alessi agreed.

“It’s a lot of fun and a lot of hard work. You can take these [pre-requisite] classes anywhere, but the community here is special. I’ve made good friends, probably life-long friends. We are all going through this process together,” Rosenthal added.

Alessi has made this program into what it is,” said Alessi. “He genuinely cares about each and every one of the postbacs — not only how they’re doing academically, but also how they are doing in life.”

Even with the intense time demands that come with directing PPP, Singer said he enjoys the work.

“It’s very satisfying to follow these students’ paths,”

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“It’s very satisfying to follow these students’ paths.”

Alessi said that a testament of students’ gratitude to Singer is how many alumni make themselves available to help current students.

Rosen initially graduated from USC College with a B.A. in French in 1997. Even before she graduated, Rosen realized that she wanted to be a surgeon. But she hadn’t taken any science classes. So, she returned to USC as a limited-status student.

Singer met her in his organic chemistry class. “She would sit in the front row and take copious notes,” Singer said. “She told me her story, and I realized that there were probably a number of others in the same situation.”

The idea for PPP emerged from discussions between Singer and Rosen.

“Heather really was the impetus,” he said. “Without her there wouldn’t be a program.”

Students help each other navigate what can be a very challenging two-year program. The PPP students form study groups. This year, they created a password-protected, Internet-based message center, where students can network, commiserate or ask advice on anything from chemistry homework to volunteering at a particular clinic.

“Academically, it’s very competitive,” Singer said. “They’re taking classes alongside 17- and 18-year-olds who may have had AP science courses just the year before.”

In addition to their courses, most PPP students are also building up their clinical experiences while in the program. Some, like Shapiro, volunteer as many as 20 hours a week. Interviewing applicants for the program, Singer doesn’t try to whet the challenges students will face. What he does do is try to select those sincerely committed to medicine, or in a few cases, veterinary or dentistry careers.

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Rosen is glad to help. Even lacking sleep, her message for the assembled PPP students was positive:

“Keep going for it. You will get through it, and I wouldn’t trade it for anything.”

―Edna Emerson
Cancer by the Numbers
Scientists tap math and computers for cancer studies

Computational biologists work in the world of numbers — populated by equations, algorithms and binary code — situated in the biological universe. Yet, in the future, their research will likely pay dividends in a far less abstract realm: the doctor’s office.

USC College’s Simon Tavare presents a prime example. A professor of biological sciences, mathematics and preventive medicine, Tavare holds a doctorate in statistics. He’s also part of a team working toward a future in which doctors may genetically profile a patient’s tumor to guide treatment decisions.

His colleague Xianghong “Jasmine” Zhou studied biochemistry and computer science and trained in biomathematics at Harvard. Now an assistant professor of biological sciences, Zhou creates data mining software that could lead to new insights into cancer.

“It is clear that the mathematical sciences — in particular probability, statistics and computer science — have already played a major role in recent successes in molecular biology,” said Tavare, the George and Louise Kawamoto Chair in Biological Sciences. “This is sure to continue as new experimental techniques generate new data that in turn need new mathematics for their synthesis and interpretation.”

DNA microarray technology, also called gene or DNA chips, has emerged as a powerful and widely used method to probe the complex workings of the cell. DNA chips offer a way to visualize gene activity across the genome in a single scan. What’s more, chips can reveal which genes step up or slow down in diseases such as cancer and diabetes. They also provide an alternative way to pinpoint novel disease-linked genes.

The size of a postage stamp, a single microarray can hold DNA fragments from all 30,000 human genes. The DNA fragments are embedded in a glass slide or silicon chip. In an experiment, genetic material from a sample is washed over the array. Matches between the sample and DNA “light up” the chip, producing a pattern of brightly colored dots. Computers read the chips optically, collecting information on intensity and color. The data then undergo a series of mathematical and computational analyses.

Comparing gene activity in two different cell types, such as healthy cells and tumor cells, can reveal telltale patterns called genetic signatures of cancer. Scientists have used microarrays to find genes important in prostate and breast cancers. Others revealed a genetic signature associated with aggressive breast cancer tumors likely to spread to the lungs.

But microarrays face a number of hurdles. Each experiment produces a flood of data, which can overwhelm researchers. The data are noisy, and results of experiments can be difficult to compare directly, even when the same kind of DNA chip system or platform has been used. Data generated from different platforms have been near impossible to compare.

Microarrays and Cancer

Tavare’s research group has addressed some of these issues in its work designing and analyzing microarray experiments in cancer genomics. “Microarray technology is used in many different aspects of cancer research,” said Tavare. “One way is to look at the patterns of gene expression in a set of individuals with a particular cancer in order to predict survival or response to chemotherapy. This technique may provide a more reliable way to classify tumors than classic methods of pathology.”

With colleagues at Cambridge University, Tavare studies large-scale genetic alterations in tumor cells. Specifically, the team looks at gross changes in DNA regions known to contain tumor suppressor genes and oncogenes — families of genes often altered in tumor cells. Mutated tumor suppressor genes fail to halt cell growth, and damaged oncogenes, turned on inappropriately, trigger uncontrolled growth.

Tavare and his colleagues also are following women with breast cancer tumors categorized as low-, medium- or high-grade by pathologists and then characterized by microarray analysis. They are studying the women as they undergo treatment in an effort to identify the most effective therapies for each tumor type.

The eventual goal is “when a new person with a breast tumor comes along, you could test them and [based on the results] predict which chemotherapy will work best for them,” he said.

“By itself, a list of genes turned up or down in cancer will not tell us all we need to know…. Often, it is the interaction of many genes that [is] critical in medicine.”

—Jasmine Zhou, Computational Biologist

Solving the Cross-Platform Problem

While Tavare focuses on fundamental issues of reading and interpreting microarrays, computational biologist Jasmine Zhou concentrates on comparing results from the enormous number of completed microarray experiments recorded in public databases.

“Microarray data have been flooding in,” said Zhou. But “due to the ‘cross-platform’ problem, few have actually made use of what’s in the databases. The ability to compare data from different research groups would be a boon to cancer researchers.”

Zhou recently unveiled a new software program, the Integrative Array Analyzer, designed to help scientists do just that. Mining microarray databases and integrating the data collected thus far would increase confidence in the findings, she said.

The program might also help reveal new genetic signatures common to different cancers, a possibility that interests Zhou. She anticipates using the software to identify interactions between genes that may be associated with cancer, but when looked at a single gene at a time, may not appear important.

“I want to know how genes interact, what they do and how they are regulated,” she said. DNA microarray data will be crucial to that aim.

“It gives you a snapshot of a particular moment in a cell,” Zhou said. “It shows you what’s happening across the entire genome. By integrating multiple data sets, we can begin to focus on the discovery of networks of genes, and how they are differentially regulated in cancer tissues.”

“By itself, a list of genes turned up or down in cancer cells will not tell us all we need to know to understand complex diseases such as cancer. Often, it is the interaction of many genes that causes the differences in tumor cells most critical in medicine, such as the severity of disease.”

—Eva Emerson
Longer (and Taller) Lives
Centuries-old records confirm link between health and lifespan

Current life expectancy has reached an all-time high of 77-plus years, almost double the life expectancy of someone living 250 years ago. Although modern medicine accounts for some of the increase in mortality, it does not explain it all.

According to a new analysis of 18th and 19th century public health records, high rates of childhood infection stunt growth and accelerate aging.

The study by demographer Eileen Crimmins and neuroscientist Caleb Finch, professors with joint appointments in USC College and the School of Gerontology, expands upon the duo’s previous research, which suggested that today’s longer lifespan may be partially explained by lower rates of infectious disease in childhood.

The new study appeared Dec. 30 in the early online edition of the Proceedings of the National Academy of Sciences.

Records from four European countries show that, on average, survivors of generations with rampant childhood infection measured by cohort mortality rates at young ages — were shorter and died younger than counterparts from generations with less childhood disease.

Crimmins and Finch propose that even when they grew into apparently healthy adults, survivors of high-infection generations carried a heavier lifetime burden of inflammation. This in turn accelerated the progress of cardiovascular disease.

The authors also cited contemporary studies showing that respiratory infections, childhood diarrhea, dysentery and other common infectious diseases reduce growth.

When rates of infection dropped due to improved public health practices, adult survivors grew taller and lived longer.

“Our model implies that the reduction in lifelong levels of infections and inflammation reduced and delayed the progression of cardiovascular disease and mortality due to heart disease, and allowed for increased height,” said Crimmins, the study’s lead author and holder of the Edna M. Jones Chair in Gerontology.

Other obvious beneficial factors, such as improved nutrition and higher standards of living, did not explain all the mortality decline. The USC researchers found that increases in height did not always follow improvements in income and nutrition. In addition, height decreased during some periods of rising average income in early industrial cities.

The authors concluded that a reduction in infection and resulting inflammatory load had the potential to increase height independently of improved food intake.

This study extends previous research by Finch and Crimmins, published last year in the journal Science, which linked childhood infectious disease exposure to chronic inflammation leading to cardiovascular disease and a shortened lifespan.

For their current study, the authors collected mortality data from Sweden, France, England and Switzerland. The data begins in different years for each country but ends uniformly with individuals born in 1899.

After 1900, modern medicine became a dominant force in treating childhood illnesses, swamping the mortality effects studied by Crimmins and Finch.

“The inflammatory mechanism for our model only works when mortality from infection is high,” said Finch, a University Professor and the ARCO/William F. Kieschnick Chair in the Neurobiology of Aging. “Once childhood infection is low, it can no longer be a factor in explaining old-age trends.”

Crimmins and Finch believe it is possible that the mechanisms of infection and aging in historical populations may apply to developing countries with high levels of infectious diseases and inadequate medical care.

The research was supported by the National Institute on Aging.

—Kirsten Holguin

Chemical First
Fast lasers reveal molecule falling apart

An international team has become the first to watch a molecule from the inside as it falls apart.

The team reported the experimental breakthrough in the Jan. 13 issue of Science, the world’s leading scientific journal. The findings offer new insights into the electronic charge and energy flow changes that form the basis of all chemical reactions.

USC College chemists Hanna Reisler, Anna Krylov and doctoral student Sergey Levchenko collaborated with researchers from the Steacie Institute for Molecular Sciences, the University of Regina and Queen’s University in Canada; the Sandia National Laboratories in the U.S.; and the Open University in the U.K. The study’s lead author was Albert Stolow, senior research scientist at the Steacie Institute.

In the experiment, performed at multiple sites, a laser pulse caused a dinitrogen diozone molecule, known as the NO dimer, to break apart into nitrogen oxide fragments.

The entire reaction lasts approximately a thousand femtoseconds, or one millionth of a millisecond of a second. Using a one femtosecond laser pulse as a starter’s pistol, subsequent laser pulses were used both to clock the chemical reaction and to knock off an electron with each pulse.

The information in the ejected electrons enabled researchers to reconstruct snapshots of the chemical reaction in progress. An innovative use of this technique allowed observation of the reaction from the so-called “molecular frame” viewpoint, as if from a molecule-mounted camera.

“You can almost see how the electronic structure of the molecule evolves in time the way the molecule would see it, and you can observe it directly,” said Reisler, the Lloyd Armstrong Jr. Chair in Science and Engineering and professor of chemistry.

Reisler’s group contributed experimental data about the endpoints of the reaction. The Canadian team’s ultrashort laser pulses could not pinpoint the energetics of the process because a law of quantum physics, the Heisenberg Uncertainty Principle, limits how accurately one can determine both the time and the energy of molecular-scale processes.

The femtosecond laser pulse experiments determined the timing accurately, but provided only a range for energies.

Long-pulse lasers in Reisler’s laboratory “interrogated” the initial and final states of the reaction, providing accurate measurements of the distribution of energy among the reaction products.

Krylov’s group then computed changes in the arrangements of electrons and nuclei in the molecule during the reaction.

“Our calculations characterized electronic states of the dimer involved in the process and helped to develop an explanation of what actually happens during the reaction,” said Krylov, an associate professor of chemistry.

—Carl Marschall
Nur does he pull punches when describing the first Spanish settlers’ violence against the culture and human rights of the indigenous people.

“As a historian,” Starr said, “you have got to tell the truth.”

He approaches his own life with the same intensity and sense of wonder.

Inside his office, Starr sat behind a desk wearing a navy blue-and-white pinstriped shirt and a signature red bowtie. Rather than world-weary, his eyes reflected conviction and a soft heart. Raising his bushy brows for emphasis, he talked about his early tumultuous years and how he arrived at the boys’ orphanage. Called the Alberitum, the orphanage was nestled in the tranquil Northern California town of Ukiah. There, Dominican nuns gave him chaotic life stability.

“The nuns showed me a world of order,” he said. “They taught me to have dignity and high standards.”

Born September 3, 1940, Starr lived with his parents and younger brother in San Francisco, where his father was a production machinist. When Starr was three, a brain tumor took his father’s sight. The stress took its toll on the young couple and they divorced. Raising two young sons alone during WWII, Starr’s mother suffered a breakdown. Kevin and his brother were shuffled from grandmother to aunt.

“We became a burden,” he said. “They weren’t prepared to take us in.”

The boys were placed in the Alberitum, founded in 1903 by Dominican sisters. In Ukiah, 18 miles from the rugged coastline and surrounded by redwoods, the young historian-in-the-making was captivated by his new world.

He remembers his “house-mother,” Sister Marita’s soothing voice as she read Robinson Crusoe and Swiss Family Robinson at night. In the mornings, he awoke to the murmur of sisters chanting the divine office.

“The nuns were firm, yet kind,” Starr said. “Sister Marita’s soothing voice as she read Robinson Crusoe and Swiss Family Robinson at night. In the mornings, he awoke to the murmur of sisters chanting the divine office.”

At one time he was an athletic skier and canoeist,” Starr said. “He filled the room with the physical vigor of an athlete.”

Starr also met Joseph Ratzinger years before he would become Pope Benedict XVI, who replaced John Paul II.

“The current Holy Father is much more quiet and more of a scholar,” Starr said.

A devout Catholic who believes in evolution, Starr plans to write a book of essays about the Catholic experience in America.

At 65, he will not retire anytime soon. “Who’d teach my students?” he said.

Starr, who’s also a regular contributor to the Los Angeles Times editorial page, said he would never tire of writing about California.

“I’m grateful to Almighty God for my life,” Starr said. “I’m overwhelmed by the mystery of life. I’m filled with wonder and awe. And I have deep gratitude.”

So, what might someone say after discovering Starr’s latest work? One word comes to mind: Eureka!

—Pamela J. Johnson
Scholarship Bound

A round-up of recent books by USC College faculty

by Dagmar Barnouw

In her previous book, Dagmar Barnouw, professor of German and comparative literature, examined photographs of postwar Germany showing how the victims sought to impose the burden of responsibility for World War II and the Holocaust on the German people. Now, Barnouw demonstrates how deeply that narrative took hold — and the silence it imposed — as she seeks a more complete historical remembrance through examination of the validity and importance of the memories of the defeated Germans.

Tooth and Claw (Viking, 2005)
by T.C. Boyle

Novelist T.C. Boyle, Distinguished Professor of English, offers a collection of 14 previously published short stories — some surrealistic, others grim. With characters such as a desisture and an unstoppable drunk, a Mexican rancher, a “ghetto school” teacher and a woman who runs on all fours with a pack of dogs, it’s civilization squaring off against wildness in the form of an African predator, ravenous alligators, war, substance abuse, a woman in 1702 and a school “teacher and a woman who lost his ethical faculties after an explosion in 1848 drove a metal rod through his skull.

Reading Benedict / Reading Mead: Feminism, Race and Imperial Visions (Johns Hopkins University Press, 2005)
by Dolores Janiewski and Lois Banner

This collection of essays on the scholarly and personal partnership between anthropologists Ruth Fulton Benedict and Margaret Mead provides diverse analyses of the women’s complicated 25-year relationship. Lois Banner, professor of history and gender studies, and her co-editor present 16 essays that reveal different responses to the couple’s interpretations and revelations about their emotional, intellectual and sexual intimacy. Banner writes about “The Bo-Cu Plant,” an unpublished novel by Benedict; Nancy Lutenbach, associate professor of anthropology and gender studies, contributes a chapter on Mead.

by Antonio Damasio

In a 10th anniversary edition of *Antonio Damasio’s classic exploration of the neurochemical basis of feelings, the USC neuroscientist argues that emotions are central to reasoning and decision-making. The human brain, he contends, has a specialized region in the frontal lobes for making personal and social decisions, and this region works in concert with deeper brain centers that store emotional memories. To support his claim, Damasio draws on research with brain-injured patients and also cites the case of Phineas Gage, a railway foreman who lost his ethical faculties after an explosion in 1848 drove a metal rod through his skull.

Willful Creatures: Stories (Doubleday, 2005)
by Aimee Bender

Aimee Bender, assistant professor of English, has received stellar reviews for her new book, a story collection called a “most unlikely page-turner,” by the *Wall Street Journal*. Described as surreal and unconventional, her prose brings to life potato children, a family with pumpkin and clothes-iron heads, and a boy with keys for fingers. The *New York Times* reported that Bender’s “twinkling, chatty prose style carries the reader effortlessly over the road bumps of implausibility.” Still, the *Washington Post* opined, “Insofar as short narratives can be new, exciting, hard rugged and unyielding, these are.”

The online bookseller Powells.com highlighted the book as a “Staff Pick,” writing: “On the surface, most of the stories shouldn’t ring true at all…. A lonely man keeps a tiny man for a pet; a woman makes sculptures out of words and noble gases — yet each delivers an emotional impact rarely matched in short fiction.”

Wounded (Graywolf Press, 2005)
by Percival Everett

Novelist Percival Everett, professor of English and author of 15 books, tells the story of art lover and horse trainer John Hunt, a black, Berkeley-educated rancher in rural Wyoming. The town seems tolerant enough until the body of a murdered gay man is found, racial slurs are written in blood in the snow and the cows owned by Hunt’s Native American neighbor are shot. Hunt hesitates to get involved, even when his own hired hand is arrested for the murder. It all boils down to a struggle for justice, tolerance and friendship amid self-doubt, homophobia and the moral and political choices good people must make.

by Mark Kann

Political scientist Mark Kann discusses how first-generation Americans coupled their legacy of liberty with a penal philosophy that promoted patriarchy. Although American patriots fought a revolution in the name of freedom, their leadership feared that immigrants, minorities and the lower classes were prone to disorder and crime. This spurred the creation of the penitentiary. The book explores the question of how classical liberalism aided in the development of such expansive penal practices in the wake of the War of Independence.
Probing Memory

New book explores memories made, stored and lost

Memory is the most amazing phenomenon in nature. The fact that we can remember literally billions of bits of information — facts, language, our own experiences, athletic skills, musical knowledge — is truly astonishing.

Thus begins Memory: The Key to Consciousness (Joseph Henry Press, 2005) by USC College’s Richard Thompson and Stephen Madigan.

“Memory really is the key to consciousness,” said Thompson, a neuroscientist and the Keck Professor of Psychology and Biological Sciences.

“What are we without all of our memories, our learned experiences and the knowledge we’ve accumulated throughout our lifetimes?”

Written for a popular audience, the book explores current thinking on how memory works and what happens when it fails. The authors describe the development, experience, mechanisms and structures of memory, or how ordinary forgetting and the unreliability of memory.

While scientists still do not have all the answers, “the understanding of memory has advanced exponen- tially in the last few decades,” Thompson said.

A member of the National Academy of Sciences, Thompson has pioneered the study of learning and memory for nearly 50 years. Using a wide variety of approaches, from psychological to genetic, he has tracked the minute physical changes that occur in the brain as learning takes place and memories are coded, stored and retrieved.

Thompson and others have shown that the brain encodes a memory by changing the physical structure of connections between neurons called synapses. When something new is learned, neurons sprout new synapses and strengthen existing connections.

Learning, he noted, is the active creation of memory. Memory is what is stored as knowledge.

“When something terrible happens, most people form a basic association between the environment they were in with the actual painful event,” said Thompson. “People learn to associate a specific environment or other cues with memories of pain and fear.”

Thompson recruited Madigan, his long-time colleague, to help write Memory. An associate professor of psychology, Madigan investigates facets of human memory, including mental imagery, short-term memory and forgetting.

The Many Kinds of Memories

The authors write about the many types of memories, including explicit memories — the recollections of lived experience. Scientists also study the processes involved in how people recognize visual objects and recall word meanings, remember how to drive a car or swing a bat, or recognize a face as opposed to a voice.

People use short-term memory to remember a phone number just for the few seconds necessary to dial it. But it’s in their long-term memory where they store information about how to use a phone, the person they are calling and the matter they mean to discuss.

In terms of creating long-term memories, scientists have shown that cramming the night before an exam may result in a passing grade, but it’s not ideal for learning. Thompson and Madigan describe a study showing that students who crammed for an exam scored only slightly worse than students who had studied regularly over a longer period of time.

However, when students were retested on the same material a week later, cramners recalled only 30 per-
Community in Los Angeles?
USC College sociologist Paul Lichterman explores American civic life

The widespread belief that increased participation in civic groups will lead to a more democratic and engaged society doesn’t always hold true, in Paul Lichterman’s view.

Lichterman, who joined USC College as an associate professor of sociology in 2004, is passionate about his studies of American civic life. “There is this idea that if only people go out and get active, a broader community develops automatically,” said Lichterman. “It isn’t automatic at all. The process really depends on what people assume makes a good group, or a good citizen.”

The cultural diversity and social inequality present in Los Angeles was a strong factor in his choice to come to USC, he said. “L.A. is a great living laboratory for understanding relationships between civic groups.”

Relationships among those active in the community are at the heart of Lichterman’s inquiry into why civic groups often have trouble working together to achieve a greater public good. While many sociologists have assumed that more civic participation leads to more bridges between diverse groups, Lichterman, through years of ethnographic fieldwork, has found that assumption is often wrong.

Lichterman has attended countless civic group meetings and events, where he watches and listens carefully. He focuses his work on discovering what people think “community” is, and how they try to build it. He looks at how and when “bridge-building” occurs between civic groups and between the groups and the community, as well as what hinders connections.

In Search of Community
Lichterman’s sociological quest to understand “the greater civic good” has been based largely on his interest in “thinking about big social questions and then exploring how they play out in everyday life.”

His “public sociologist” research approach — observing civic group interactions — allows him to “offer active citizens a mirror, a set of reflections they can use to talk about their own goals and frustrations,” he said.

These frustrations arise, he said, because different groups share different customary beliefs about the role of a civic group in society.

In a study of faith-based civic organizations for his book, Elusive Togetherness (Princeton University Press, 2005), Lichterman found that even members who shared the same religious beliefs could have different ideas about what it meant to be a civic organization, and what the organization’s role in the community should be.

“Some of the liberal, mainline Protestants I studied assumed a good church group is a gathering of charitable volunteers or ‘helpers.’ Other mainline Protestants thought a good church group should act like a ‘partner,’ creating new ‘public’ goods,” he said. “The difference here was not a matter of differing religious beliefs, or even differing political beliefs, but different customary ideas about what a good group is and what the role of a religious group in public life should be — it’s different customs, different ways of doing things together.”

To understand these customs as well as how people learn to be better citizens and exercise social responsibility, Lichterman has found that it’s best to start small.

In 2004, USC College sociologist Paul Lichterman was recruited to USC College along with his wife and fellow sociologist, Associate Professor Nina Eliasoph, as part of the College’s senior hiring initiative.

Lichterman concluded that church groups need much more than compassion if they’re going to build new social ties; short-term volunteering does not create the social ties that communities need in order to thrive.

Whether it is disasters like Hurricane Katrina or long-term faith-based efforts, “compassion is not nearly enough to address human needs,” Lichterman said.

“A lot of the most powerful parts of culture are taken-for-granted understandings that many people share but few discuss,” he said. “This subtle level of culture is powerful precisely because people don’t often call it into question. But it is just these little everyday misunderstandings that create miscommunication and trip up the most sincere efforts to build community across racial and class barriers.”

Ultimately, Lichterman hopes, studies that lead to a better understanding of these subtleties in the culture of civic life will result in a strengthened social fabric — one in which individuals dare to make mistakes and in the end, create a more just society that includes and bridges cultural differences.

Life in Los Angeles
Lichterman is finding that his academic and personal pursuits have prospered from his relocation to USC. “Both L.A. and USC are great places to study how community and democracy can thrive in an incredibly diverse, painfully unequal city,” said Lichterman. “I like seeing six different languages on the signs along the seven-mile bus ride from USC to my stop. I hope to become a participant in L.A.’s diversity and not just a spectator.”

—Kaitlin Solimine

Real help requires more than good intentions
Faith-based efforts to help people in need will not succeed with compassion and good intentions alone. The key is to create the long-term, mutually respectful relationships that bridge the gap between the haves and the have-nots, according to USC College sociologist Paul Lichterman, who spent more than three years studying nine Protestant-based volunteer and advocacy projects in a mid-sized American city.

Only one of the projects created long-term relationships, while the other eight folded — some in as little as one year, he said.

“Their style of involvement was different, but they ended up having a lot of the same frustrations and failures,” said Lichterman. “Most of the groups wanted to create relationships with low-income people, with county agencies, with other civic, nonprofit groups,” he said. “They failed on their own terms a lot of the time. Most didn’t create the bridges they wanted.

“A lot of these groups — just like Americans all over the country — think that if we just get out and get active and volunteer, that somehow new social ties will take form by themselves. It’s as if people think that there is this invisible hand that will take all of that volunteering and turn it into new ties and stronger communities,” he said.

“The one group out of the nine that really succeeded at building relationships was the one that kept questioning, reassessing and having conversations about the relationships it was trying to build.”

Lichterman concluded that church groups need much more than compassion if they’re going to build new social ties; short-term volunteering does not create the social ties that communities need in order to thrive.

Whether it is disasters like Hurricane Katrina or long-term faith-based efforts, “compassion is not nearly enough to address human needs,” Lichterman said.
College Honors Society Launched

New program to strengthen academic excellence and student scholarship

SC College leaders have established a comprehensive, four-year honors and enrichment program. The new College Honors Society redoubles efforts to support students in pursuit of academic excellence, said College Dean Joseph Aoun. “The purpose of a research university is to transmit and create knowledge,” he told attendees, including current honors students, at the Society’s launch party Oct. 27.

“One goal of the new Society is to further boost original scholarship by undergraduates. More and more we’re prevailing in the competition to attract the nation’s top students,” Aoun said. “Our students are really of the go-getter mentality, the entrepreneurial mentality, the take-charge mentality. Their expectations — of college, of faculty and of themselves — are high. We’ve envisioned a number of new programs, such as the Honors Society, to meet these demands.”

Peter Starr, dean of undergraduate programs and a professor of French and comparative literature, said the new program will help the College vie for students who have their choice of prestigious universities. Starr will oversee the program, which will expand upon and coordinate the existing menu of honors programs. While many departments, Starr said, offer well-organized honors tracks, others are still in the process of setting them up.

The Thematic Option, Baccalaureate/MD, Freshman Science Honors and Resident Honors programs now serve approximately 230 freshmen, said Robin Romans, the assistant dean of admission and honors programs. While successful, Romans said, none of these were designed to provide an honors experience that would last over a student’s entire college career.

Romans will direct the Honors Society. Judy Haw, director of supplemental instruction in the College, will serve as associate director.

One well-articulated goal of the new Society is to further boost original scholarship and research by undergraduates, which has increased in recent years. Current departmental honors programs typically require stu-

Precingly Prize

USC College neuroscientist earns Spain’s Prince of Asturias Award

For his discoveries about the brain and behavior, neuroscientist Antonio Damasio was chosen the sole winner of the 2005 Prince of Asturias Award for Technical and Scientific Research. Although little known in English-speaking countries, Spain’s 25-year-old Asturias Awards rank among the world’s highest honors.

Damasio, professor of psychology and director of the new Brain and Cognition Institute in USC College, accepted the honor at an Oct. 21 ceremony in Oviedo, Spain. The 22-member jury selected Damasio, a native of Portugal, for his influential research.

The award citation states, “His studies have revealed which areas of the brain have a decisive influence on human conduct, particularly the processes of emotion and the development of feelings, as well as providing a greater understanding of the cerebral bases of language and memory. His achievements in science are also contributing to the fight against diseases such as Parkinson’s and Alzheimer’s that are of such concern to mankind because of their gravity and prevalence.”

Through research papers and acclaimed books such as Descartes’ Error, recently reissued in a 10th anniversary edition by Penguin, Damasio has shown that emotions play a crucial role in rational thought and decision-making. His work undercut a century-old movement in neuroscience that considered feelings irrelevant to the study of reason.

Joseph Aoun, dean of the College, said: “The Prince of Asturias Award is extremely prestigious and acknowledges scientific, technical, cultural, social and humanitarian work of international scope. We are extremely proud to have a scientist of Antonio’s caliber as part of USC College’s research enterprise.”

Past science winners include Craig Venter, who led the team that mapped the human genome and AIDS virus co-discoverers Robert Gallo and Luc Montagnier.

Winners in the other award categories — arts, social sciences, letters, communication and humanities, international cooperation, concord (equivalent to a peace prize) and sports — have included statesmen Nelson Mandela, astronaut John Glenn and playwright Arthur Miller.

Damasio’s new institute will direct interdisciplinary research on the connections between emotion, decision-making and creativity. The Dornsife Neuroscience Imaging Center, directed by Damasio’s spouse and longtime collaborator, Professor Hanna Damasio, will play a central role in institute studies.

A critical aim of the institute is to delve “deeper in the understanding of how emotions and reason interact to permit decision-making, both in the personal space and in the public space,” said Damasio, who belongs to a small group of “most cited researchers” in neuroscience as tracked by the Institute of Scientific Research.

Fundamental to the Damasio’s work is their conviction that a proper understanding of emotion is crucial to one’s development as a human being. Maturity requires a successful negotiation between reason, knowledge and the emotional pressures in everyday life, he said.

“In order to achieve what is in fact a very, very difficult accommodation, the more we know about how the process works in the first place, the more we are likely to succeed.”

As for his emotional reaction to the award, Damasio sought to balance joy with rational perspective: “Whenever one gets a prize, these days, you are one among many people who could get exactly the same distinction. I think that prizes are both very pleasant and very humbling experiences.”

Among his many honors, Damasio is a member of the Institute of Medicine of the National Academy of Sciences.

—Carl Marziali
Neuroscience Institute Launched

USC College reorganizes neuroscience research effort

USC College has announced the launch of the Neuroscience Research Institute (NRI), a major reorganization and renaming of the 23-year-old Neural, Informational and Behavioral Sciences (NIBS) program.

Alan Watts, professor of biological sciences in the College who has led NIBS for the last year, will direct the NRI, an independent unit of USC College, whose mission is to facilitate and promote neuroscience research on University Park campus.

NIBS brought together USC scientists interested in studies of the brain, nervous system and related topics. The program has provided a cross-disciplinary forum for interaction, collaboration and education for more than 80 faculty from the College, engineering, medicine, gerontology, pharmacy, Childrens Hospital Los Angeles and the USC Independent Health Professions.

“The creation of NIBS was an inspired move on the College’s part,” said Watts, crediting Bill Wagner, then dean of natural sciences and mathematics, as being the prime mover in its creation. He established NIBS to reflect a broader recognition by psychologists, computer scientists, neurologists, biologists, gerontologists, linguists, engineers, mathematicians and others that only through interdisciplinary efforts can scientists begin to understand the brain and nervous system. Since then, “neurosciences” has become shorthand for a thriving interdisciplinary approach, and is considered one of the most promising fields of the 21st century.

“NIBS provides a proven model of how to set up an interdisciplinary research effort,” Watts said. “But things have changed. The kinds of research we do has grown and includes topics that don’t quite fit the NIBS model. We thought we should refocus the mission and rename NIBS to reflect these changes.”

Neurocientist Michael Quick, dean of research in the College, agreed: “The NIBS name didn’t include the cellular and molecular researchers, a group which has grown in numbers and strength in the last decade.”

In 1987, pioneering neuroscientist Richard E. Thompson came to USC College to build the NIBS program and served as its director until 2001. Thompson holds the W.M. Keck Chair in Biological Sciences and is a professor of psychology and biology.

Since 1989, USC neuroscience efforts have been centered in the Hedco Neuroscience Building, a facility built to house NIBS colleagues from an array of disciplines and schools.

In 1996, NIBS faculty began the university-wide Neuroscience Graduate Program (NGP), which numbers some 90 students and allows doctoral students to work with any NGP faculty member, no matter the school or department.


Watts said that the establishment of the Zilkha Neurogenetics Institute at the Keck School of Medicine — as well as the recent expansion of basic neuroscience research at Childrens Hospital Los Angeles — has changed the mission of NIBS.

“The NRI will focus on research activities on the University Park campus and will foster research in a way that individual departments can’t,” Watts said. “We want to continue the synergy” NIBS created among biologists, psychologists, computer scientists, biomedical engineering and gerontology.

The NRI will also include research undertaken at the Dornsife Neuroscience Imaging Center and the new USC Brain and Creativity Institute, which is led by Antonio Damasio, professor of psychology and neuroscience.

Through membership in the Provost’s Neuroscience Advisory Group, as well as in the NGP, University Park neuroscientists will remain closely linked with those throughout the university.

—Eva Emerson
Tying Up Feminism’s Loose Ends
Sociologist delves into paradoxes of women’s lives

S
cholar Sharon Hays explores “the unfinished business of feminism.”

Formerly a professor of sociology and women’s studies at the University of Virginia, Hays joined the sociology department in the USC College last fall. On Nov. 7, she was formally installed as the third holder of the Barbara Streisand Professorship in Contemporary Gender Studies.

The culture, gender and family specialist’s published work has dealt extensively with the conflict that arises when a woman is expected to be ambitious and self-centered in the workplace, and nurturing and selfless in the home.

In other words, she grapples with the paradox that arises between “competitive individualism and human ties of commitment and obligation.”

Hays also has examined some of feminism’s unintended economic consequences, such as how the success of middle-class women has emerged at the same time as increasing hardships for working-class and impoverished women.

“We are very fortunate to have recruited Sharon Hays,” said Michael Messner, professor and chair of sociology. “Her award-winning books on the culture of motherhood and on the impact of welfare reform on poor mothers have established her as a star in American sociology.”

Messner said that her arrival also has solidified the department as one of the very best in the fields of the sociology of gender and culture.

Hays’ first book, The Cultural Contradictions of Motherhood (Yale University Press, 1996), delved into the internal tensions for working mothers in our culture, between the “ideology of intensive mothering” — the belief that a mother should focus all her time, energy and money on raising children — and the quest for economic success, which requires a woman to focus all her time on the individual pursuit of material wealth.

Over two years, she examined the lives of 38 mothers from all socioeconomic backgrounds for this book, which has been translated into three languages.

Her book on the ethnographic study of welfare reform, Flat Broke With Children (Oxford University Press, 2003), involved three years of interviews with welfare recipients and their caseworkers.

Hays describes herself as someone who studies American popular culture. “But I also study culture in the broadest sense — the values and norms that affect how people behave.”

Hays’ work links her to many colleagues working on family issues and social inequality. These include sociologists Pierrette Hondagneu-Sotelo, who has studied the use of paid domestic work in families; Elaine Bell Kaplan, who researches the experiences of African-American teen mothers; and others interested in changes in family relations.

“The idea of the ‘family’ as a nuclear unit consisting of a married male breadwinner and female homemaker/mother, with two or three children, is an ideological construct, based in the ideals of postwar middle-class America,” Messner said. “It is not the statistical norm.”

Understanding the family, Hays said, is crucial to understanding American culture. And for Hays, that often means studying the reality and conflicts of contemporary women’s lives.

“What are the possibilities for women’s true equality?” she asked.

“We have come closer to it than ever seen in the history of the world. But it has come with a big package of problems that still need to be resolved.”

—Katherine Yangwoo Kim

College Scientist Named Ellison Senior Scholar
Geneticist recognized for work on ‘paternal age effect’

A
other’s age when she conceives can affect the health of her children. Indeed, one of every 30 children born to women over 45 will have Down syndrome.

But what about older fathers? They, too, carry a higher risk of conceiving a child with a genetic condition, said Norman Arnheim, a USC Distinguished Professor and a leading human genetics researcher.

Arnheim is one of a few scientists investigating what he calls the “pater nal age effect.”

For his work, Arnheim was recently named a Senior Scholar by the Ellison Medical Foundation, which supports aging research. Arnheim, holder of the Ester P. Dornsife Chair in Biological Sciences in USC College, will receive $977,437 over five years.

“He is a world leader in human genetics, and his discoveries and achievements have carried their own weight,” said his colleague, Myron F. Goodman, professor of biology and chemistry.

“Norm is a modest man who has very little to be modest about,” said his colleague, Myron F. Goodman, professor of biology and chemistry.

“Paternal age effects” are not new. “It has been observed for decades, and the idea is well known,” Arnheim said.

But what are the possibilities for a DNA mutation known to cause achondroplasia in sperm samples from men of different ages.

To do this, researchers add a highly sensitive “primer,” a short DNA sequence that specifically binds to the mutation, to a sample of DNA. The primer triggers the synthesis of new DNA, which alerts researchers to the presence of the specific mutation.

Examining the genetic profiles of the men’s samples, the team made a surprising find. In contradiction to expectation only a small increase in the frequency of the mutation was found in the sperm of older men.

“The issue turns out to be much more complicated than anybody thought” said Arnheim. “The Ellison award will support our work to find new answers.”

Others at USC who have been named Ellison scholars are aging researchers John Tower, associate professor of biological sciences, and University Professor Caleb Finch.

—Laura Sanders
Brushed by the Demon

Alumnus Chris Abani writes of torment and grace

Five and a half years ago, Chris Abani was unemployed and playing the saxophone at Santa Monica Pier. Those who tossed coins into his open case didn’t know that the Nigerian-born musician playing the blues had survived horrors as a political prisoner in his homeland. They also didn’t know he was an accomplished novelist.

USC College’s Ron Gottesman knew. He was familiar with Abani’s poetry book chronicling his prison experiences, Kalabuta Republic (Saqi Books, 2000). Gottesman helped to get Abani enrolled in the College’s then-new doctoral program in literature and creative writing.

This December, Abani became the program’s first graduate when he earned his Ph.D. in literature and creative writing. He’s published six novels, poetry and nonfiction books and is working on his seventh about an East L.A. man who longs to be a woman. And in an extremely rare appointment, the University of California, Riverside hired Abani as a tenured associate professor before he completed his Ph.D.

Gottesman, now professor of English emeritus, understands why all the fuss. Friends from the literary organization PEN introduced him to Abani after the writer arrived from London, where Abani had earned his degree in gender and women’s studies.

After Abani’s life was threatened, he fled London and arrived in Southern California with few possessions.

“It was love at first sight,” Gottesman said. “My wife and I and other friends helped him with money and things like pots and pans and clothes and books. He was renting a room in East Los Angeles.”

Gottesman sought to recruit Abani to the College after reading Kalabuta Republic, which he said “was like eating a bowl of barbed wire for breakfast.”

Much of Abani’s work reflects the tormenting events in his life. But the first novel he wrote at 16 was a thriller. The novel was published in Nigeria in 1985, and the Nigerian regime claimed the novel was a blue-print for General Maman Vatsa’s coup. Abani, who said the novel was his teenage fantasy, served six months in prison for treason.

Once released, Abani began writing about government corruption in Nigeria.

“This initial brush with the government was not deliberate on my part,” the soft-spoken writer said, inside his temporary office at Antioch University in Los Angeles, where he also teaches creative writing.

“But having once been brushed by the wings of the demon, I became the demon hunter.”

In Nigeria, Abani was again incarcerated for his writing. This time, he spent a year in Kiri-Kiri maximum-security prison, so-called Kalakuta Republic. There, Abani was tortured extensively and routinely, episodes he describes in Kalakuta Republic. He was released, but returned to Kiri-Kiri after he wrote a play condemning the Nigerian government. He was placed on death row and spent six months in solitary confinement.

A group of friends forced his release and Abani fled to London. Eventually, he learned that Nigerian regime members had tracked him down. He fled London after a Nigerian man in his apartment building was stabbed to death. Abani believed he was the actual target.

So when Gottesman found Abani playing the sax on the Santa Monica pier, Abani had already endured what seemed like many lifetimes. “I feel very old,” the 39-year-old said. “But I believe in grace. There is grace in the universe.”

Gottesman persuaded the Ph.D. writing program’s founding director, Professor Carol Muske-Dukes, to read Abani’s work.

Muske-Dukes said she was instantly taken by Abani’s poetry and genuine charm. Abani received a Middleton Fellowship and enrolled.

“Chris and I talk about the word, baraka, meaning ‘gift’ in Swahili and other languages,” Muske-Dukes said. “I think Chris is baraka in my life. He’s given so much.”

Poet David St. John, the program’s director, said he was impressed by Abani’s dedication to his craft.

St. John said Abani was among the highly select group of students that make the program unique.

“Our goal,” he said, “is to send out writers but substantial scholars as well.”

Abani has received numerous awards. For his novel Graveland (Farrar, Straus and Giroux, 2004), he won the 2005 Hurston/Wright Legacy Award for Debut Fiction; the PEN Hemingway Prize for Fiction; and was a 2005 finalist for the Los Angeles Times Book Prize for Fiction.

In a 2004 PEN-sponsored program in which an established writer introduces a younger writer, Salman Rushdie chose Abani. Walter Mosley, acclaimed author of over 19 books, chose Graveland to discuss on the “Today Show” book club, and appeared with Abani on the TV show.

“His such a hard worker that he nearly drove me crazy,” Everett said. “I would send him away to rewrite 50 pages and he’d be back the next day with the 50 and 20 more. He’s a genius spirit. He is a true artist.”

Abani credited his USC professors for helping to give his writing depth. He said St. John encouraged him to let his imagination soar. After his classes, Abani said he began to realize that everything in life is connected. At times, however, it took a while for St. John’s lessons to sink in.

“Like when St. John spent an hour discussing fine art, speaking about the beauty of Picasso. Abani wondered what all that had to do with writing.”

“A few days later,” Abani recounted, “I was walking down the street and realized ‘Oh my God, I’m Picasso!’ ”

—Pamela J. Johnson
‘Genius’ of Memory
Alumna Wins MacArthur Award

Officially, as one of the 2005 winners of the prestigious MacArthur Foundation Fellowships, USC College alumna Lu Chen (Ph.D., Neuroscience, ’98) is a “genius.” Chen, a neurobiologist at UC Berkeley, said receiving the fellowship “was a huge surprise. I never thought it would happen to me.”

When she received an early morning call about the award in September, her first response, she said, was “What?!”

Her former adviser, Richard F. Thompson, was not so surprised. “She is one of the most outstanding students I have ever had,” said Thompson, the W.M. Keck Professor of Biological Sciences and Psychology in the College and a member of the National Academy of Sciences.

The MacArthur Fellowships, commonly referred to as “genius grants,” are awarded annually to individuals who show exceptional merit and promise for continued and enhanced creative work. Recipients can use the five-year, unrestricted $500,000 grants as they wish.

Chen, 33, was one of 25 winners nationwide, including scholars, artists, writers and others “willing to take risks, transcend and expand boundaries,” MacArthur program director Dan Socolow told the San Francisco Chronicle.

Chen earned her B.S. in molecular biology in her native China, but had always been interested in the brain and memory. “Memory was something that even a naïve student could relate to their everyday life,” she said. Accepted into USC’s program, she read about Thompson’s work in the program brochure. Before arriving on campus, she had set her sights on working with him.

“Dick is probably the smartest person I’ve ever met in my life,” Chen said. “I consider myself very lucky to have joined his lab. What I treasure most was the emphasis on independent thinking.”

Chen’s dissertation research focused on identifying neural pathways in the cerebellum important in learning, looking at both the genetic and cellular levels. Using a strain of mutant mice, Chen and Thompson were the first to show that the cerebellar cortex facilitates learning in mice and controls the timing of behaviors, she said.

In 1990, Bert moved to South Seattle when it opened in 1997. “The day that I student-taught,” he said, “I was 50, earned my master’s degree in physical education from USC. Bert, 50, earned his master’s degrees in physical education and education administration from California State University, Los Angeles. He began teaching the year he graduated from USC.

“Not many Trojans up here,” Bert, who has been teaching P.E. for 26 years, says he owes much of his success to USC’s former physical education major program, which has since been dismantled. However, USC’s Physical Education Program, which offers a variety of fitness and activities classes, is in place.

Bert, who teaches physical education and coaches the girls and boys tennis teams at Black Hills High School in Olympia, Wash., has earned several high honors for teaching over the years.

Last year, he became a National Board Certified Teacher in Early Adolescence Young Adulthood in Physical Education — the highest level of achievement for teachers. Bert also received the 2004 High School Teacher of the Year Award, given by the Washington Alliance for Health, Physical Education, Recreation and Dance.

In 1990, Bert moved to South Sound, Wash., and joined the faculty at Black Hills when it opened in 1997. He’s married with three children.

He credited much of his professional success to his USC professors and instructors Bob Girandola, Ruth Spalthawk and Jim Toman.

“To this day, I am in gratitude for their training and guidance,” he said.
What's News With You?

Graduate Student Teaching Awards

USC College’s 2005 General Education Graduate Assistant Awards went to: Shayna Maskell of the writing program; Katie Mussack of physics and astronomy; Rebecca Sheehan of history; and James Thing of sociology. The writing program’s James Brecher won this year’s Advanced Writing Teacher Award. Each winner received $1,000.

USC College Doctoral Prizes

USC College honored three newly minted Ph.D. holders in December. Now in its fourth year, USC College Doctoral Research Awards, which come with a $1,000 prize, recognize the three best dissertations submitted in the previous academic year. Winners for 2005 were: Earth scientists Sarah Pruss won for her dissertation “Proliferation of Early Tiarisss Wrinkle Structures: Implications for Environmental Stress Following the End-Permian Mass Extinction.” Pruss, who studied with paleontologist Dave Bottjer, is now the Agouron Geobiology Postdoctoral Fellow in the department of organic and evolutionary biology at Harvard University. Her research, published in her dissertation and many journal articles, focused on the recovery of life after the largest extinction in the history of Earth. She has shown that the mass extinction, which took place some 246 million years ago at the end of the Permian, took longer than previously supposed. “Her work throws new light on a catastrophic time in Earth’s history, and has long-term implications for Earth’s environment in the present,” said Tom Heneyy, professor and chair of earth sciences.

International relations scholar Laura Sjoberg won for her dissertation “Gendering Just War: Feminisms, Ethics, and the Wars in Iraq.” Sjoberg’s dissertation, which is already under contract to be published as a book, engages historically with the Christian and Islamic traditions of the “just war.” She offers an analysis and critique of the contemporary uses and misuses of the just war theory, and applies gender theory to just war theoretical constructs. Sjoberg, whose adviser was Professor Ann Ticknor, is now a post-doctoral fellow in the Women and Public Policy Program and the Belfer Center for Science and International Affairs in the Kennedy School of Government at Harvard University. She is also completing a law degree at Boston College. Chemist Melissa Grunlan won for her dissertation “Cross-linked Siloxane: Preparation and Properties.” Grunlan, who worked with Professor William Weber, developed a new kind of coating to protect marine vessels from marine organisms that attach and damage ships. The cross-linked siloxane polymer coating, unlike current anti-fouling products, is not harmful to marine life and offers an environmentally friendly alternative. Grunlan is now a tenure-track assistant professor of biomedical engineering at Texas A&M University.

Geology Students Honored

Good news from the earth sciences department: Graduate student Jake Bailey has received a National Science Foundation Graduate Research Fellowship Award for 2005–2008. And, doctoral student Kurt Frankel received one of the inaugural Mellon Awards for Excellence in Mentoring.

Island Campus Goes Hands-on for USC Wrigley Anniversary

The USC Wrigley Marine Science Center celebrated its 40th birthday and the USC Wrigley Institute for Environmental Studies its 10th, at an Aug. 27 open house at the Catalina Island facility. On a tour of the labs, visitors learned about helipad before climbing to touch it (above), viewed microscopic sea life and heard about the ongoing research of USC College faculty and graduate students, who were on-hand to answer questions about their work.

Disaster Relief

College fund helps Katrina victims

Surrounded by three generations of family members, USC senior Brandy Alexis grew up in the 7th Ward of downtown New Orleans. Her childhood home that was once filled with happy memories now sits empty — without windows, doors or even the hardwood mantelpiece.

“It is quite a shock to see your neighborhood completely demolished,” said Alexis, in response to a recent trip to her hometown. “The whole area is very dark because street lights are limited, and the smell is unimaginable. My eyes were constantly burning.”

Alexis — like many Gulf Coast residents here at USC — was lucky to find family members safe in spite of the regional destruction that cost more than 1,000 people their lives. Still, the hurricane displaced the clan to Connecticut and North Carolina, where relatives and friends were kind enough to take them in.

“My family was really hit hard by this disaster,” she said. “It trickles down and affects every part of your life.”

In response to a university-wide call to action, USC College developed the Katrina Relief Fund for USC students. The fund was set up to offer scholarship aid, as well as other means of support, to help the students and their families who now find themselves in unfathomable situations, said USC College Dean Joseph Aoun.

“Our hearts go out to all of the people who have been so dramatically affected by this natural disaster,” he said. “Their lives are hardly recognizable.”

More than $13,000 dollars was donated by students, faculty and alumni to help alleviate some of the financial burden experienced by USC’s Gulf Coast residents. Ten students were identified from across the university to receive approximately $1,300 each towards tuition for the fall semester.

Alexis, who is working to finish a Bachelor in Fine Arts degree at the School of Theater, was one of the fortunate recipients.

“I was worried that I wouldn’t be able to visit my family during the holidays because all of my extra money would go towards tuition,” said Alexis. “It is amazing to me that these generous people found it in their hearts to help me.”

“I am honored and grateful to everyone that has turned this very confusing and hurtful time in my life to a very hopeful one,” she said.

—Alexis Bergen
Faculty News

New Directors

Alison Dundes Renteln, professor of political science, has been named director of the Jesse M. Unruh Institute of Politics at USC.

She hopes to create programs that have more of a global focus, such as internships with the United Nations. USC College has named Hanna Damasio director of the Dana and David Dornsife Cognitive Neuroscience Imaging Center. Damasio, professor of psychology and neuroscience, has pioneered the use of brain imaging methods in the study of brain lesions. In addition, Bruce Zuckerman, professor of religion, was appointed the Myron and Marian Casden Director of the USC Casden Institute for the Study of the Jewish Role in American Life.

Elisaph and Lichterman Win Award

Associate Professors Nina Elisaph and Paul Lichterman won the 2005 Best Article Award from the American Sociological Association Section on the Sociology of Culture for their paper “Culture in Interaction,” published in the January 2003 issue of the American Journal of Sociology.

Waterman Joins French Academy

University Professor Michael Waterman, professor of biological sciences, computer science and mathematics, was elected a corresponding member of the French Academy of Sciences in the biological division. Waterman was selected among a group of the world’s most eminent scientists.

ACS Honors Prakash Second Time

Surya Prakash

Last time, it was for his work with fluorochemistry. This year, chemist G.K. Surya Prakash received the 2006 American Chemical Society Award in Hydrocarbon Chemistry. It is the second national ACS award won by Prakash; in 2003, George A. and Judith A. Ohl Nobel Laureate Chair in Hydrocarbon Chemistry, in the last two years. USC Distinguished Professor George Ohl, the Donald P. and Katherine B. Loker Chair in Organic Chemistry, termed his colleague’s recent honor “a truly stellar and practically unprecedented achievement.”

Chemists Elected AAAS Fellows

In addition, Prakash and Charles McKenna, professor of chemistry and pharmaceutical sciences, were elected Fellows of the American Association for the Advancement of Science (AAAS). Prakash was cited for “outstanding contributions to organofluorine, carbonation, supramolecular and hydrogen bonding chemistry and for pioneering work on the revolutionary liquid-feed, direct oxidation methanol fuel-cell technology.” The AAAS recognized McKenna for “important discoveries in biogentic chemistry, particularly creation of innovative chemical probes of nitrogenase, highly useful and biologically important fluorescent phosphate analogs and novel antiviral produgs.” His research in organophosphorus chemistry led to a new class of antiviral agents.

McKenna honored at Latina/o Symposium

At USC’s first Latina/o Studies Symposium, organizers honored USC College’s Teresa McKenna, associate professor of English and American studies and ethnicity, for her commitment to teaching and serving as a role model for minority faculty throughout the university. For McKenna the recognition was a clear sign of how much USC has changed in the last 15 to 20 years. “We can see the commitment USC has to diversity in the range of minority professors from assistant to associate to full professors. All of that is due in large part to work by people that had a vision, and I became part of that vision,” she said.

Good Neighbors

As of Dec. 7, some 56 USC College faculty and staff members had pledged 1 percent or more of their salaries to the 2005 USC Good Neighbors Campaign — a strong increase from the 35 who joined this top-notch of giving last year, according to Tammara Anderson, the College’s Campaign coordinator.

American Studies Camp

USC College faculty had a high profile at the 2005 annual meeting of the American Studies Association (ASA), held November 3-6 in Washington, D.C.

Karen Bittner, professor of history and American studies and ethnicity, is president of the ASA, making her the third USC professor to be elected to this academic leadership post. Lois Banner, professor of history and American studies and ethnicity, served as the ASA’s first female president in 1996-87. At the meeting, Banner received the Bode-Pearson Award for lifetime achievements to the fields of American studies, gender studies, and women’s history. What’s more, George Sánchez, professor of history and American studies and ethnicity, received the 2005 Constance Rourke Prize for best article written in 2004. Sánchez’s article, “What’s Good for Boyle Heights is Good for the Jews: Creating Multiculturalism on the Eastside during the 1950s,” appeared in the American Quarterly, the ASA journal currently

Three Named Fulbright Scholars

In recognition of their academic achievements and extraordinary leadership potential, three College faculty received Fulbright awards this academic year.

Vern L. Bengston, professor of sociology, was awarded a Fulbright Scholar grant for research and teaching in Sweden from January to June 2006. Working at the Karolinska Institute in Stockholm, Sweden, his research focuses on cross-national developments in social gerontology, consequences of population aging for family relationships and theories of aging.

Carolyn Carter, associate professor of geography, was awarded a Fulbright Scholar grant for research and teaching in the department of geography at Hong Kong Baptist University during the 2005-06 academic year. In her research project, “Hong Kong and Urban Space: Redefining the World City,” Carter focuses on intersections between the new urban and political movements in the city and its linkages to other cities.

Susan McCabe, associate professor of English, received a Fulbright Scholar grant for research and teaching in Sweden from January to June 2006. She is teaching a creative writing workshop at Lund University and working on her next book project, a biography of writer Bryher (1884-1983). The author of 14 books, Bryher was a benefactor of modernist writers and thinkers, and founder and publisher of the film magazine Chagall. Bryher helped dozens of Jewish and German intellectuals escape Nazi persecution during World War II.

Historical Accomplishments

Professor Lois Banner and Nancy Lutkehaus, associate professor of anthropology and gender studies, have written new forewords for Margaret Mead’s Dead Ladybird: A Humanist in Anthropology, 30th anniversary edition (Columbia University Press, 2005). Philip Ethington, professor of history, had two works in a show recently at the Getty Research Institute, “Julian Shulman: Modernity and the Metropolis” and a large panoramic portrait of Shulman. Carole Shamas, the John R. Hubbard Chair in History, wrote the introduction and co-edited a new book, The Creation of the British Atlantic World (Johns Hopkins, 2005). Peter Mancall, professor of history and director of the USC-Huntington Early Modern Studies Institute, has been appointed to a three-year term on the editorial board of the Journal of American History.

International Affairs Expert Honored

Abraham Lowenthal

Abraham Lowenthal received the Edward J. Perkins Award from the Institute for International Public Policy at the UNCF Special Programs Corporation. He was chosen “in recognition of [a] demonstrated commitment to promoting Cultural Competence and Diversity in International Affairs.” In August, Lowenthal, professor of international relations, was installed as the inaugural Robert F. Erbium Chair in Ethics, Globalization and Development in USC College.

College Faculty Join Provost’s Team

Barry Glassner, professor of sociology, has been appointed the executive vice provost, serving as new USC Provost C.L. Max Nikias’ chief deputy and chief of staff.

Michael Preston, professor of political science, is the special advisor to the provost on diversity issues as well as other campus priorities.

Gene Bickers, professor of physics and astronomy, is responsible for all programs related to undergraduate education as the new associate vice provost for undergraduate affairs.

Jonathan Aronson is the executive director of the Annenberg Center for Communication and reports directly to the provost. Aronson holds joint appointments in international relations and the Annenberg School.

Howard Gillman, professor of political science, history and law, is associate vice provost for research advancement — social sciences, and is responsible for overseeing the campus research environment as it relates to work in the social sciences.

Jean Morrison, professor of earth sciences, is associate vice provost for graduate affairs and has responsibility for the Graduate School, as well as the Women in Science and Engineering (WISE) program.

Kamieniecki and Deviny sauce Water Quality Prize

USC political scientists Sheldon Kamieniecki and engineer Joe Deviny teamed up with UCLA engineer Michael Steinstrom to think of new, more cost-effective ways to clean up the local stormwater. Their report, “Alternatives for Stormwater Control,” earned the trio a prize from the L.A. Regional Water Quality Control Board, which they received Oct. 20 at the board’s annual dinner. Published in August, the report reexamined strategies for cleaning up the torrents of winter rainwater that rush into the ocean off urban Southern California via storm drains, picking up chemical and biological pollution on the way.

Raubenheimer Awards

USC College awarded the 2005 Albert S. Raubenheimer Outstanding Faculty Awards recognizing exemplary teaching, research and service to Thomas Habinek, professor of classics; Clifford Johnson, professor of physics and astronomy; and Barnoff Mednick, professor of psychology.

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Promotion: William M. Unruh Institute (AW) .

William M. Unruh Institute

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Ivanova Pancheva, assistant professor of linguistics and Slavic languages and literatures, received the Rauschenheimer Award for junior faculty. Habinek studies cultural history, with particular emphasis on archaic and classical Rome, and examines literature’s involvement in the construction of social authority and distribution of power within traditional societies. He is currently studying the role of song in Roman culture. Johnson focuses on the development of theoretical tools to better understand and describe the past, present and future of the universe. He’s also the co-creator of a wide-ranging blog about the scientific life called esonvircotanar.com. For decades, Mednick has studied the links between pre-natal environmental exposures and mental illness, especially adult schizophrenia. His research has led to better understandings of the biological causes of schizophrenia and antisocial behavior, among other topics. Pancheva has been at USC since the fall of 2000. Her research in theoretical linguistics focuses on syntax, semantics and the interface between syntax and semantics.

G.E. Teachers Honored

Winners of the College’s General Education Teaching Award were recogni tion for courses taught in the 2004-2005 academic year were:

Emily Hodgson Anderson, assistant professor of English, for “Plays and the Question of Performance.”

Gregory A. Davis, professor of earth sciences, for “Crises of a Planet.”

Douglas E. Hammond, professor of earth sciences, for “Earth History: A Planet and Its Evolution.”

Natalia Meeker, associate professor of French and Italian, for “Reason and the Passions: Human Beings in Enlightenment Contexts.”

Steven J. Ross, professor of history, for “Film, Power and American History” (see story page 20).

George J. Sánchez, professor of history and American studies and ethnicity, for “Race and Class in Los Angeles.”

Boris Wolfson, assistant professor of Slavic, languages and literatures, for “Russian Thought and Civilization.”

Janelle Staci Wong, assistant professor of political science and American studies and ethnicity, for “America, the Frontier, and the New West.”

Roosevelt-Wilson Award to Spielberg

The American Historical Association awarded the 2005 Theodore Roosevelt- Woodrow Wilson Award to director and USC Trustee Steven Spielberg for his work as founding chairman of the Survivors of the Shoah Visual History Foundation. At the Jan. 5 ceremony, Doug Greenberg, executive director of the USC Shoa Foundation Institute for Visual History and Education, accepted the award on Spielberg’s behalf.

Introducing Computational Genomics

For more than a decade, professors Richard DeMing (now emeritus), Simon Tavaré and Michael Waterman have taught an introductory course on interdisciplinary fields they helped to pioneer — computational molecular biology, bioinformatics and genomics. Now they have transformed their carefully honed course notes into a book targeted at advanced undergraduates and beginning graduate students who, like the authors themselves, may have backgrounds in biology, statistics, math or computer science. In the front pages of Computational Genomics: An Introduction (Springer, 2005), the USC College authors thank their students “particularly those who learned with us in BSC 499 and Bio 601.” They write, “This book is a roll up your sleeves and get dirty introduction to the computational side of genomics and bioinformatics.”

Obituaries

Theodore E. Harris, 88, emeritus professor of mathematics, died Nov. 3. A member of the National Academy of Sciences, Harris was an expert in probability theory. He focused on stochastic processes, including such areas as the general theory of Markov processes; the theory of branching processes and applications such as inventory problems; Monte Carlo methods; and cosmic ray cascades.

Harris joined the USC College faculty in 1946 and taught in the mathematics department until 1989, when he retired. “Professor Harris made groundbreaking and far-reaching contributions to the theory of probability and stochastic processes,” said Gary Rosen, professor and chair of math. “At the same time he was an immensely popular instructor, extremely modest and so unassuming that if you ever met him you would never have guessed that he was by far the most famous and celebrated member of our department.”

In addition to his election to the NAS, Harris received many distinctions during his career, including being elected a Fellow of the Institute of Mathematical Statisticians as well as the American Association for the Advancement of Science. In 1985, Harris received the Albert S. Rauschenheimer Outstanding Faculty Award for excellence in scholarship, teaching and service at USC. He earned a M.A. and Ph.D. in mathematics from Princeton University in 1946 and 1947, respectively, and a B.A. in mathematics from the University of Texas in 1939.

John A. Schutz, emeritus professor of history, died in November. He was 86. Schutz’ work focused on colonial America. “John Schutz devoted many years of his life to USC, as a faculty member and as dean of the Social Science Division of the College,” said Steven Ross, professor and chair of history. “He will be missed by all who knew him.”

Schutz received a B.A., M.A. and Ph.D. from UCLA. After graduating in 1945, he began teaching at the California Institute of Technology. In 1953, he took a faculty position at Whittier College, where he taught until joining the USC College faculty in 1965. During his 29 years at USC, Schutz also served as the chair of the history department. Schutz wrote numerous books and essays including The Promises of America (Dickinson, 1970) and The Destining of America (Forum Press, 1981). In 2001, Liberty Press reissued Schutz’ The Spar of Fame: Dialogues of John Adams and Benjamin Rush. Schutz served as president of both the American Historical Association and the American Studies Association.

He is survived by his sister Rosemary Di Salvo; nephews Joseph, John and George Di Salvo; and niece Catherine Padgett.

Rima Akkad Monla (B.A., International Relations, ’85), died Nov. 9 in a terrorist bombing in Amman, Jordan. She was attending a wedding with her father, Moustapha Akkad, who also died in the attack. Akkad, a successful film producer, attended USC briefly in the 1980s. International Relations Professor Laurie Brand remembers Monla as an enthusiastic student who sought Brand’s advice about continuing her studies of the Middle East after graduation. Monla enrolled in a master’s degree program in Middle East studies at the American University in Beirut, Lebanon. It was there she met and married her husband, Ziad Monla. The couple had two sons, 4 and 2 years old.

Continuing their friendship over the years, Brand visited Monla and her family while on sabbatical in Lebanon in 2002 and 2003. “She was very devoted to her kids and her family,” Brand said. “She was full of life. She loved her kids, loved her family and loved living in Lebanon.”

Correction

Alumnus Andrew Nestler (Ph.D., Mathematics, ’00) contacted us about an error in the Fall 2005 issue of the magazine. In the article “The Graduate Mission” on page 5, we included Nestler’s former peer, mathematician Matei Stroila of the University of Virginia, in a list of recent graduates of USC doctoral programs now in tenure-track positions. In fact, Stroila was a research assistant professor at UVA. Since 2004, he has been a postdoctoral research fellow at the University of Illinois, according to his and Nestler’s former Ph.D. adviser Wayne Raskind. We regret the error.

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USC College Magazine is published three times a year by the USC College of Letters, Arts & Sciences at the University of Southern California. Permission to quote or republish is given freely. Attribution to “USC College Magazine” is appreciated.

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Historian and cinephile Steven Ross in the classroom

What are you willing to fight for?”

A roomful of 18- to 20-year-old students were asked to consider this question during this general education history class lecture on the Vietnam War.

The talk is initiated by a discussion of reinstating the military draft. Then, Professor Steven Ross asks students to contemplate what it would be like to be fired upon, or to aim and shoot at an enemy. A young man raises his hand and says he would serve in the U.S. military to protect the nation and its people.

Another woman asks, “Why fight violence with violence?”

Students in this class examine many of the fundamental social, political and economic problems that have shaped 20th century American history. The class combines schools of historical thought with elements of film studies. Each two-hour class begins with a historical overview and is followed by a viewing of several films — fictional feature films, documentaries and newsreels — that relate to that era. Students are also asked to read primary documents that shed light upon those issues.

“In short, we will triangulate our way through American history,” said Ross, history department chair who has been teaching this course since 1998. “It is the student’s job to figure out which of these perspectives seems most convincing, why it seems so, and the implications of one form of knowledge being more powerful than another.”

Ross came up for the idea for this class when he was finishing up his book, Working Class Hollywood: Silent Film and the Shaping of Class in American (Princeton University Press, 1998), which examines silent films’ impact on political issues, such as what it meant to be working class, or to belong to a union, or to be a radical.

“There is an old cliché that research and teaching are mutually reinforcing,” he said. “This was true in this case.”

Recently, Ross was recognized for the innovative class when USC College honored him with a General Education Teaching Award for his work in History 225g.

He says that USC’s proximity to Hollywood draws a lot of students to the university to study film. Ross admits to seizing upon that student interest to help them understand how films can reflect or distort the history of the Southeast Asian region.

The Vietnam lecture started with an overview of the Cold War, and how such restrictions "seen throughout the history of modern American film undermine the foundation of our free society.”

Spagnoletti said he had never thought about history through film before. “It is the most interesting class I have taken at USC,” he said.

—Katherine Yangmo Kim